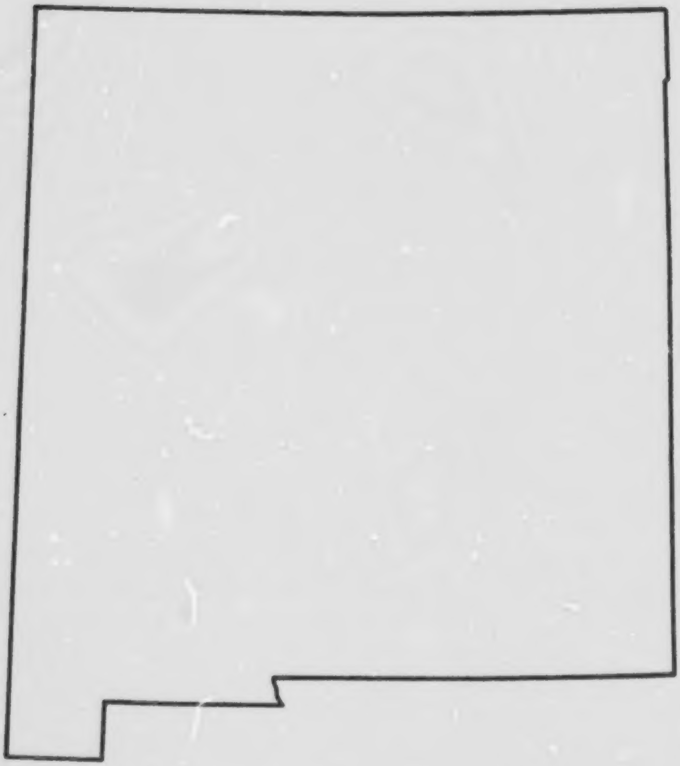
Water Resources Data
New Mexico
Water Year 1984

ORIGINAL



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-84-1
Prepared in cooperation with the State of New Mexico
and with other agencies

CALENDAR FOR WATER YEAR 1984

1983

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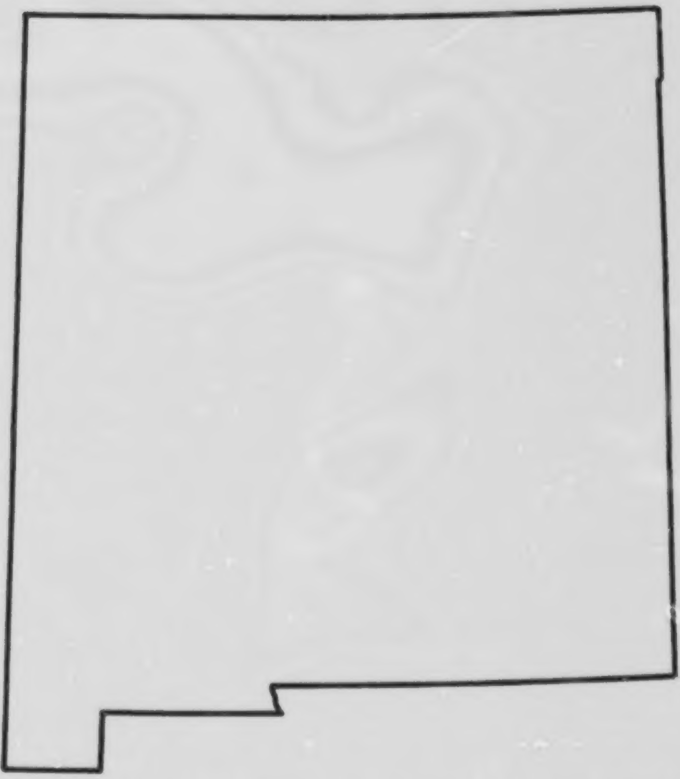
U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

1912

Water Resources Data
New Mexico
Water Year 1984

by Louis P. Denis, Linda V. Beal, and Harriet R. Allen



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-84-1
Prepared in cooperation with the State of New Mexico
and with other agencies

I

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD P. HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information on the
water program in New Mexico write to
District Chief, Water Resources Division
U.S. Geological Survey
505 Marquette NW, Room 720
Albuquerque, New Mexico 87102

1985

PREFACE

This report was prepared by personnel of the New Mexico District of the Water Resources Division of the U.S. Geological Survey under the supervision of Robert L. Knutilla, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with various water agencies in the State of New Mexico

This report is one of a series issued for each State. General direction for the series is by Phillip Cohen, Chief Hydrologist, U.S. Geological Survey, and James F. Daniel, Assistant Chief Hydrologist for Scientific Publications and Data Management.

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Water resources data for the 1984 water year for New Mexico consist of records of discharge and water quality of streams; stage, contents and water quality of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 173 gaging stations; stage and contents for 25 lakes and reservoirs; water quality for 76 gaging stations and 196 wells; and 105 observation wells. Also included are 143 crest-stage partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Mexico.

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[Letters after station name designates type of data: (b) biological, (c) chemical, (d) discharge, (e) elevation, stage or contents, (m) microbiological, (s) sediment, (t) water temperature]

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INTRODUCTION

Water-resources data for the current year for New Mexico consist of records of discharge and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 173 gaging stations; stage and contents for 25 lakes and reservoirs; water quality for 76 gaging stations, 1 partial-record station, 2 reservoirs, 1 spring, 7 miscellaneous sampling sites, and 196 wells; and water levels at 105 observation wells. Also included are 143 crest-stage partial-record stations. Additional water data were collected at various sites not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Mexico.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series, then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities of the United States or may be purchased from Distribution Branch, Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, Virginia 22304.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a state-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released in separate reports. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a state-boundary basis. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, the 1976 report is identified as "U.S. Geological Survey Water-Data Report NM-76-1." These water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22161.

COOPERATION

The Water Resources Division of the U.S. Geological Survey and organizations of the State of New Mexico have had cooperative agreements for the systematic collection of streamflow records since 1930, and for water-quality records since 1940. Organizations that assisted in collecting data in this report through cooperative agreement with the Survey are:

Office of State Engineer of New Mexico, S. E. Reynolds, State Engineer.

New Mexico Interstate Stream Commission, S. E. Reynolds, Secretary.

Pecos River Commission, H. M. Babcock, Federal representative and Chairman;
W. Gerrells, Commissioner for New Mexico;
B. L. Moody, Commissioner for Texas.

New Mexico State Highway Department, L. A. Larranaga, Chief Administrator.

Costilla Creek Compact Commission, S. E. Reynolds, Commissioner for New Mexico;
J. A. Danielson, Commissioner for Colorado.

Albuquerque Metropolitan Arroyo Flood Control Authority, R. E. Leonard,
Executive Engineer.

City of Raton, Donald M. Romero, Mayor.

Vermejo Conservancy District, Neil C. Stillinger,
Attorney at Law.

City of Alamogordo, Dan Malone, City Manager.

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Assistance in the form of funds or services was also furnished by the city of Ruidoso, and the Carlsbad Irrigation District.

Some data have been collected by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control.

Organizations that furnished data are recognized in the station description.

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SUMMARY OF HYDROLOGIC CONDITIONS

Streamflow

As is common in New Mexico, streamflow varied considerably during water year 1984 with respect to both time and geographical location. The variations are related to differences in precipitation, temperature, topography, and geology.

During October 1-3, 1983, an eastward-moving weather front, composed of warm, moist, tropical air, produced intense precipitation across southern New Mexico. Runoff from the storm was greatest in the southwestern part of the State, particularly in the San Francisco River basin. In this basin the peak discharge at every streamflow-gaging station for water year 1984 was the maximum for the period of record, including station 09444000 San Francisco River near Glenwood, which has 57 years of record.

No other significant hydrologic events occurred in the State during the remainder of the water year.

Annual runoff at four index stations is shown in the table below and is compared to the median runoff for the reference period 1951-80:

Station	Median for water years 1951-80, in acre-feet	Runoff for water year 1984, in acre-feet	Percent of median
Rio Grande below Taos Junction Bridge	388,700	644,000	166
Gila River near Gila	79,950	138,000	173
Pecos River near Pecos	56,090	78,070	139
Delaware River near Red Bluff	7,570	9,540	126

The combined storage in the 12 major reservoirs increased 235,500 acre-feet during the water year. The contents totaled 4,117,000 acre-feet on September 30, 1984.

Water-Quality Conditions

Dissolved-solids concentrations in surface waters continued to be minimal throughout the State during water year 1984. Dissolved-solids concentrations were much less than normal for the period of record at the NASQAN stations 08358300, (Rio Grande Conveyance Channel at San Marcial) and 08358400, (Rio Grande Floodway at San Marcial).

Water year 1974 was selected as the beginning year for computation of the 10-year median for water-quality data because Cochiti Dam, on the Rio Grande about 40 miles upstream from Albuquerque, began storing water in November 1973, resulting in a change in flow conditions. It was desirable to use the same base period for all the index stations for determining the medians.

Median specific conductances at selected daily stations are shown in the table below and are compared to the median specific conductances for the reference period, water years 1974-83:

Station	Specific conductance, in microsiemens per centimeter at 25° Celsius median for water years 1974-83	Specific conductance, in microsiemens per centimeter at 25° Celsius median for water year 1984	Percent of median
Rio Grande at Otowi	341	318	93
Rio Grande at Albuquerque	427	408	96
Rio Grande CC at San Marcial	1,150	687	60
Rio Grande FW at San Marcial	734	412	56
Pecos River at Carlsbad	3,560	3,240	91
San Juan River at Shiprock	551	459	83

Annual suspended-sediment loads at four index stations are shown in the table below in comparison to the median suspended-sediment loads for the water years 1974-83.

Station	Median for water years 1974-83, in tons	Suspended-sediment load for water year 1984, in tons	Percent of median
Rio Grande at Otowi	1,497,000	1,468,574	98
Rio Grande at Albuquerque	949,500	1,197,098	126
Pecos River near Artesia	333,100	338,550	102
San Juan River at Shiprock	4,821,000	4,228,746	88

Ground-Water Levels

Ground-water levels are measured periodically in a network of about 5,000 observation wells to record changes in water levels and ground-water storage. About 1,000 wells are measured annually and the remaining 4,000 wells are scheduled to be measured at 5-year intervals, staggered so that wells in different areas are measured each year. The areas of water-level observation are within seven of the nine major surface-water drainage basins; most are in areas where ground water is used in large quantities for irrigation or for municipal or industrial purposes. Seventeen selected wells in various parts of the State are equipped with continuous water-level recording gages.

Hydrographs of wells (fig. 1) in the four quadrants of the State illustrate the water-level trends for the last 20 years (or for the period of record available in the case of the Union County well). The wells in Chaves, Luna, and Union Counties are in areas of intensive irrigation. The well in Cibola County is in an area where the mining industry has acquired most of the water rights. The decrease in ground-water withdrawals for agriculture during the last 10 years, and for mining operations during the last 7 years, may be responsible for the general water-level rise in the Cibola County well.

The water level in the Luna County recorder well (Mimbres Valley) declined this year, but continued to be higher than the average for the past 20 years. The water level in the Union County well continued to decline, a situation that is typical of wells on the High Plains of northeastern New Mexico. The Chaves County recorder well shows the yearly fluctuations that are typical of the Roswell Artesian Basin.

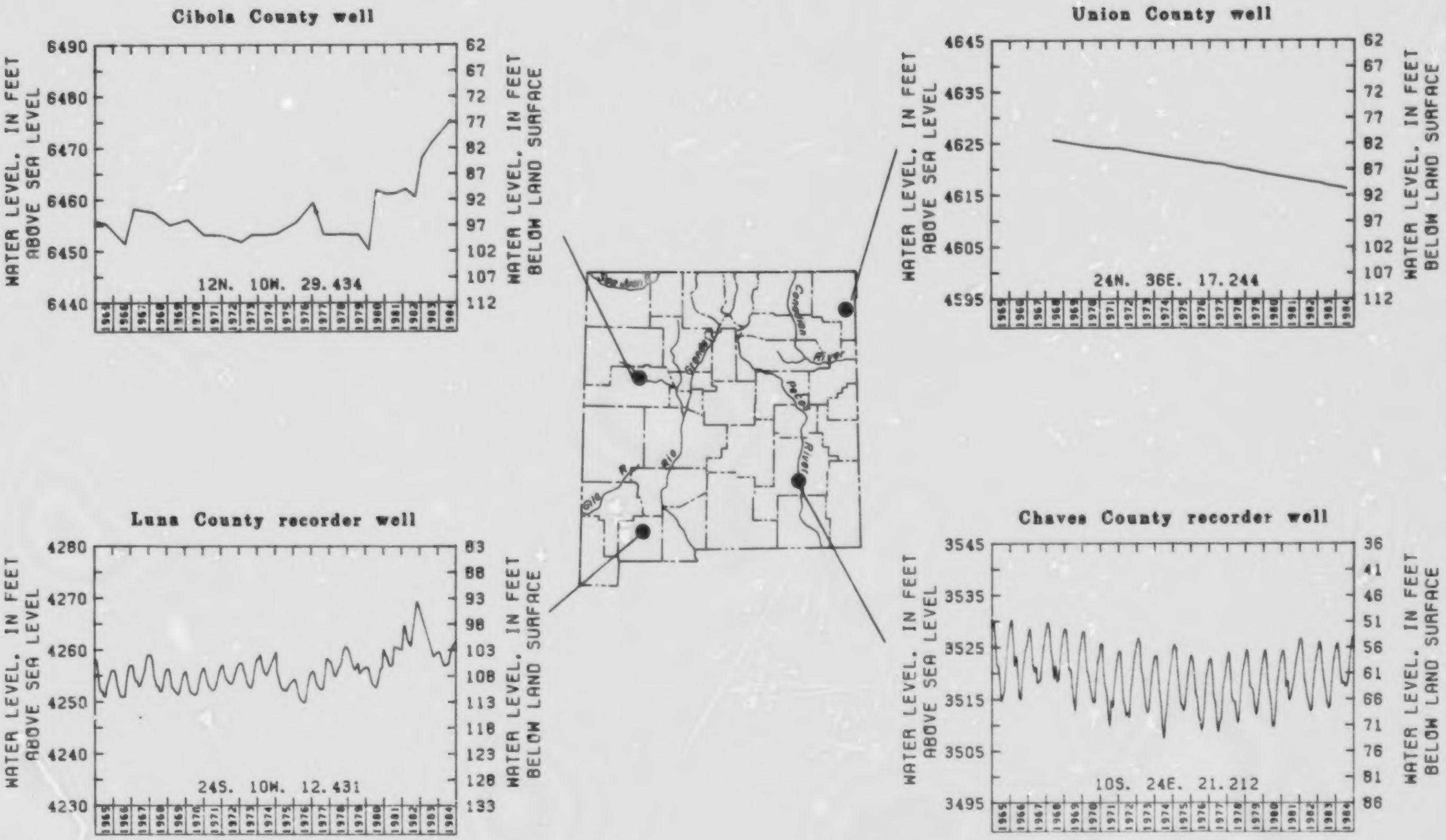


Figure 1.--Ground-water levels for the last 20 years or period of record.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of Units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons or 1,233.49 cubic meters.

Adenosine triphosphate (ATP) is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multicelled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause diseases, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestine or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in the intestine of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, coccal bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the sediment mixture of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 105°C for zooplankton and periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and the ash mass and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by the flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,445 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common green pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile $[(ft^3/s)/mi^2]$ is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Discharge-weighted average: See Weighted average.

Dissolved refers to that material in a representative water sample which passes through a 0.45 μm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Dissolved-solids concentration of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$d = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specified location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the stream above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably ith the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations and is expressed as the equivalent concentration of calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Land-surface datum (lsd) is a datum plane that is approximately at land surface at each ground water observation well.

Measuring point (MP) is an arbitrary permanent reference point from which the distance to the water surface in a well is measured to obtain the water level.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substances (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

Micrograms per gram (μg/g) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element sorbed per unit mass (gram) of material analyzed.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of dry sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meters (m^2), acres, or hectares. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation
Silt..........	.004 - .062	Sedimentation
Sand..........	.062 - 2.0	Sedimentation or sieve
Gravel........	2.0 - 64.0	Sieve

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population in terms of types, numbers, mass, or volume.

Periphyton are the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control the growth of undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton are the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton are the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample.

Zooplankton are the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time)] for periphyton and macrophytes and [mg C/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O/(m^2.time)] for periphyton and macrophytes and [mg O/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Recoverable from bottom material is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period was uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Bed load is the sediment that is transported in a stream by rolling, sliding, or skipping along the bed and very close to it. In this report, bed load is considered to consist of particles in transit within 0.25 ft of the streambed.

Bed load discharge (tons per day) is the quantity of bed load measured by dry weight that moves past a section as bed load in a given time.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is a general term referring to material in suspension. It is not synonymous with either discharge or concentration.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Total sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total sediment discharge.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Waters range, in respect to sodium hazard, from those which can be used for irrigation on almost all soils to those which are generally unsatisfactory for irrigation.

Solute is any substance that is dissolved in water.

Solution is the homogeneous mixture of solutes and water. The solutes usually comprise a very small fraction of the total weight of the mixture. For this reason, the terms "solution" and "water" are used interchangeably.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is associated with the material retained on a 0.45-micrometer filter.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 µm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata, is the following:

Kingdom.................Animal
Phylum..............Arthropoda
Class..................Insecta
Order............Ephemeroptera
Family.............Ephemeridae
Genus.................Hexagenia
Species......Hexagenia limbata

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature, whether on a chart, tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

Tons per day (T/DAY) is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined all of the constituent in the sample).

Total discharge is the total quantity of any individual constituent, as measured by dry mass or volume, that passes through a stream cross section per unit of time. This term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses, because different digestion procedures are likely to produce different analytical results.

Water year in Geological Survey reports dealing with surface water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1980 is called the "1980 water year."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WDR is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976).

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

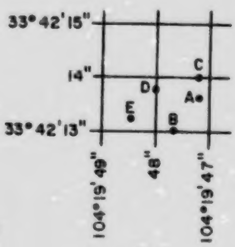
DOWNSTREAM ORDER AND STATION NUMBERS

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention on a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station, such as 08313000, which appears just to the left of the station name, includes the 2-digit part number "08" plus the 6-digit downstream order number "313000." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 07 (Lower Mississippi River basin), Part 08 (Western Gulf of Mexico basin), and Part 09 (Colorado River basin).

Numbering System for Wells, Springs, and Miscellaneous Sites

The identification numbers for wells, springs, and miscellaneous sites are assigned according to the grid system of latitude and longitude. The system provides the geographic location of the well, spring, or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 2 below.



Coordinates for miscellaneous
site C (334214104194701)

Coordinates for wells
D (334213104194801)
E (334213104194802)

Coordinates for well A
(334213104194701) and
miscellaneous site B
(334213104194702)

Figure 2.--System for numbering wells, springs, and miscellaneous sites

To provide an additional means of identification and a cross reference to records in older reports, most wells and springs have been assigned a local identifier based on the system of public land surveys. In areas covered by such surveys, the local identifier consists of a series of numbers and letters separated by periods, giving the township, range, section, and tract within a section, in that order. The letters N or S locate the township north or south of the New Mexico base line. The letters E or W locate the range east or west of the New Mexico principal meridian. A zero in a tract number indicates that the well or spring is centrally positioned or has not been located accurately enough to be placed within a tract or quarter section. Three digits in a tract number can locate a well or spring to the nearest 10-acre tract, while six digits will locate a site to the nearest 0.16-acre tract. This numbering system is illustrated in WDR NM-75-1 and WSP 1855. In the Navajo Reservation, where public land surveys have not been made, the local identifier is based on a different system of letters and numbers. In the example NR032.0156x0736, the first two letters indicate that the well is in the Navajo Reservation. The 3-digit number to the left of the decimal indicates one of a series of special quadrangle maps on which the well is located. The two numbers to the right of the decimal separated by the letter x are the coordinates of the well in hundredths of a mile from the northeast corner of the area on the map. The first coordinate indicates the distance west; the second the distance south. The above well is located on map No. 032, 1.56 miles west and 7.36 miles south of the northeast corner.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark network includes 57 sites in small drainage basins around the country which provide hydrologic and water-quality data for basins in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed, and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Included in this program are stations 08377900, Rio Mora near Terrero; and 09430600, Mogollon Creek near Cliff.

National stream-quality accounting network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information demands of government agencies and other groups involved in national or regional water-quality planning and management. Both accounting and broad scale monitoring objectives have been incorporated into the network design. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units (identified by 8-digit hydrologic unit numbers), designated by the USGS Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used to (2) describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research. Included in this network are stations 07227140, Canadian River above New Mexico-Texas State Line; 08251500, Rio Grande near Lobatos, CO; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande Conveyance Channel at San Marcial; 08358400, Rio Grande Floodway at San Marcial; 08364000, Rio Grande at El Paso, TX; 08370500, Rio Grande below Old Fort Quitman, TX; 08384500, Pecos River below Sumner Dam; 08407500, Pecos River near Red Bluff; 08477110, Mimbres River at Mimbres; 08481500, Tularosa Creek near Bent; 09364500, Animas River at Farmington; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Redrock.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity. Included in this program are the hydrologic bench-mark stations.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States. Included in this program are stations 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande Conveyance Channel at San Marcial; 08358400, Rio Grande Floodway at San Marcial; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Redrock.

Surveillance network stations are surface-water stations selected for water-quality examinations for water-quality control purposes. These stations are usually located at key regulatory streamflow gaging stations or near the state lines. Data for major inorganic constituents, nutrients, dissolved oxygen, and bacteria are collected at all these stations. Data for trace elements, radiochemicals, and pesticides are collected at some of these stations. Included in this network are stations 07221500, Canadian River near Sanchez; 08276500, Rio Grande below Taos Junction Bridge, near Taos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08319000, Rio Grande at San Felipe; 08331000, Rio Grande at Isleta; 08354800, Rio Grande Conveyance Channel at San Acacia; 08354900, Rio Grande Floodway at San Acacia; 08358300, Rio Grande Conveyance Channel at San Marcial; 08358400, Rio Grande Floodway at San Marcial; 08383500, Pecos River near Puerto de Luna; 08386000, Pecos River near Acme; 08396500, Pecos River near Artesia; and 09368000, San Juan River at Shiprock.

Tritium network is a network of stations which has been established to provide base line information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations, or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using methods adapted by the Geological Survey, as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed by applying gage heights to rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are applied to the gage heights before discharges are determined from the curves or tables. This shifting-control method is also used if the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of stage to the capacity table gives the contents, from which daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve changes because of deposition of sediment in a lake or reservoir, periodic resurveys of the reservoir may be necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulation of daily and monthly figures. For gaging stations on streams or canals a table showing the daily, monthly, and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights or elevations are included for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of a gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation records. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed under this heading are all the reports in which revisions have been published for the station, and the water years to which the revisions apply. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964 to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging stations is given under "REMARKS." For reservoir stations information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

The average discharge for the number of years indicated under "PERIOD OF RECORD" is given under "AVERAGE DISCHARGE." It is not given for stations having fewer than 5 complete years of records or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given, first, the extremes for the period of record; second, information available outside the period of record; and last, extremes for the current year. Unless otherwise qualified, the maximum discharge (or content) is the instantaneous maximum corresponding to the crest stage obtained from a graphic or digital recorder, a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or content), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified, and was determined and is reported in the same manner as the maximum. For some stations, peak discharges are listed with "EXTREMES FOR THE CURRENT YEAR"; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights, are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month may also be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, indefinite stage-relations, or any other unusual conditions at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs, the data presented comprise a description of the station and a table showing daily contents or stage. For some reservoirs a monthly summary table of stage and contents is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given, or if daily stage is published.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations (miscellaneous sites). Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of the records

The accuracy of streamflow records depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true value; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy. Different accuracies may be attributed to different parts of a given record.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharge figures listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records and rating tables, is on file in the District office. Most gaging-station records are also available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the District office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water quality samples usually are collected at or near gaging stations, because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Water-quality records are given immediately following the discharge records at these stations.

The descriptive headings for water-quality records give periods of record for the various types of water-quality data (chemical, specific conductance, biological determination, water temperature, sediment discharge), extremes of pertinent data, and general remarks.

The records of ground-water quality are published in a section titled "QUALITY OF GROUND WATER" immediately following the ground-water level records. Data for quality of ground water are listed alphabetically by County, and are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. No descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Remark codes

The remark codes listed below apply both to surface-water quality records and to ground-water quality records.

PRINTED OUTPUT	REMARK
E	Estimated value
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown
K	Results based on colony count outside the acceptance range (non-ideal colony count)
L	Biological organism count less than 0.5 percent (organism may be observed rather than counted)
D	Biological organism count equal to or greater than 15 percent (dominant)
&	Biological organism estimated as dominant

If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to insure the most recent updates.

On-site measurements and sample collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made on site when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for on-site measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-Resources Investigations," Book 1, Chap. D2; Book 3, Chap. C2; Book 5, Chap. A1, A3, and A4. All of these references appear on the list of publications following this section. Detailed information on collecting, treating, and shipping samples may also be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the District office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at the time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have small diurnal temperature changes; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may be collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration are computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day has been computed by the subdivided-day method. For periods when no samples are collected, daily loads of suspended sediment are estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples are collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Biological data

Microbiological data on coliform and streptococcal bacteria appear in this report. Methods for the collection and analysis of aquatic biological and aquatic microbiological samples are described by Slack and others (1973). (See reference 5-A4).

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published in this report. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 2.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, but the methods of measurement are standardized to the extent possible. At each observation well, however, the equipment and techniques used are those that will ensure consistent accuracy and reliability.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the elevation of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

ACCESS TO WATSTORE DATA

The National WATer Data STOrage and REtrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide a more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analysees. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
MS 437 National Center
Reston, Virginia 22092

Parameter codes

The 5-digit codes shown in parentheses in the column headings of the tables in this report are parameter codes which uniquely identify a specific constituent. These are standard codes used to identify the data stored in the files of the National WATer Data STOrage and REtrieval System (WATSTORE). These codes are identical to those used in the U.S. Environmental Protection Agency (EPA) data system, STORET. The EPA assigns and approves all requests for new codes.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-seven manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 604 South Pickett St., Alexandria, VA 22304 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.

3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.

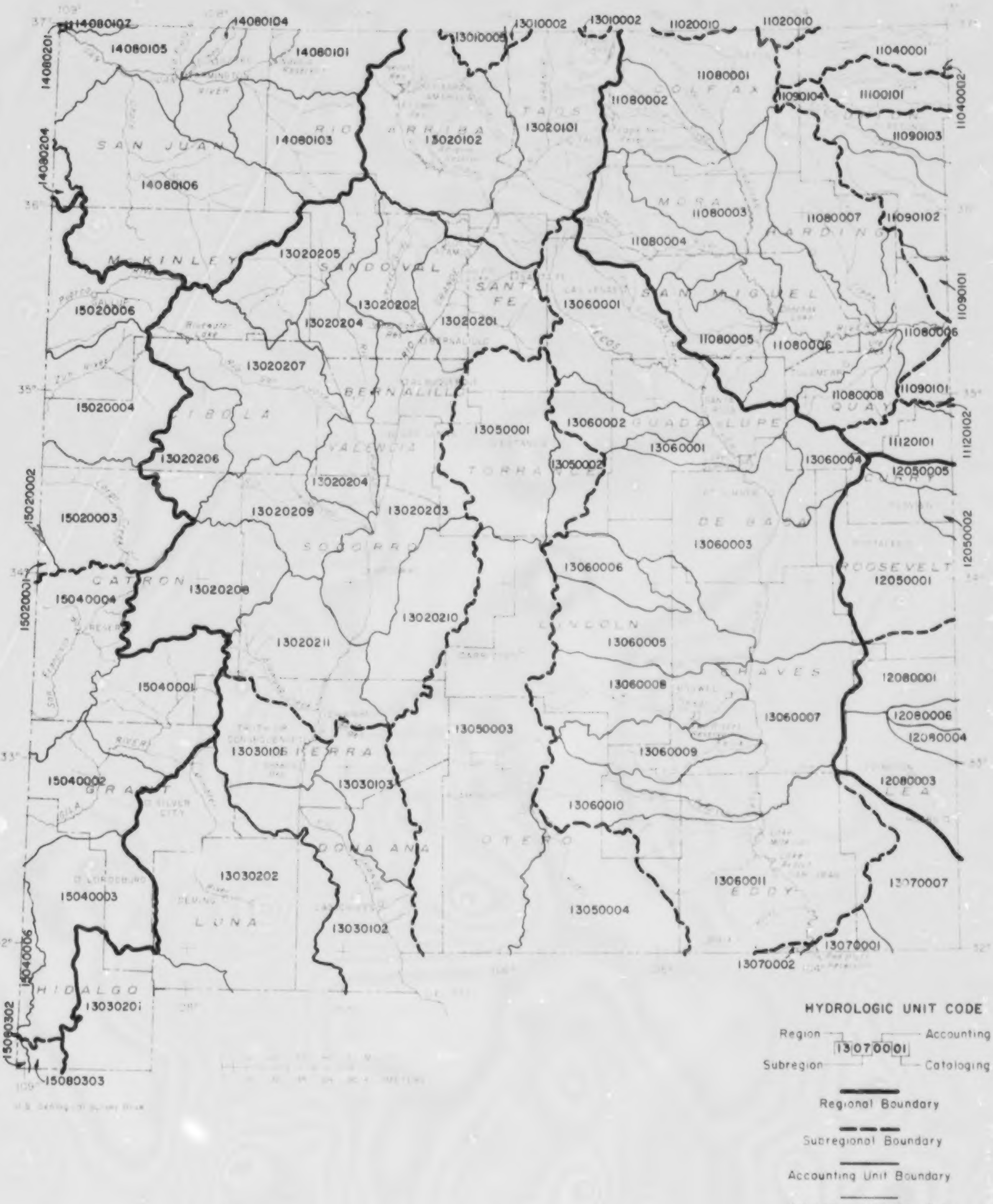
7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

7-C3. *A model for simulation of flow in singular and interconnected channels*, by R. W. Schaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.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LEA
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DEMING
LUNA
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EDDY
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HIDALGO
13030201
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HYDROLOGIC UNIT CODE
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13070001
Subregion
Cataloging Unit
Regional Boundary
Subregional Boundary
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Cataloging Unit Boundary

Figure 3.-- Map of New Mexico showing location of hydrologic units.

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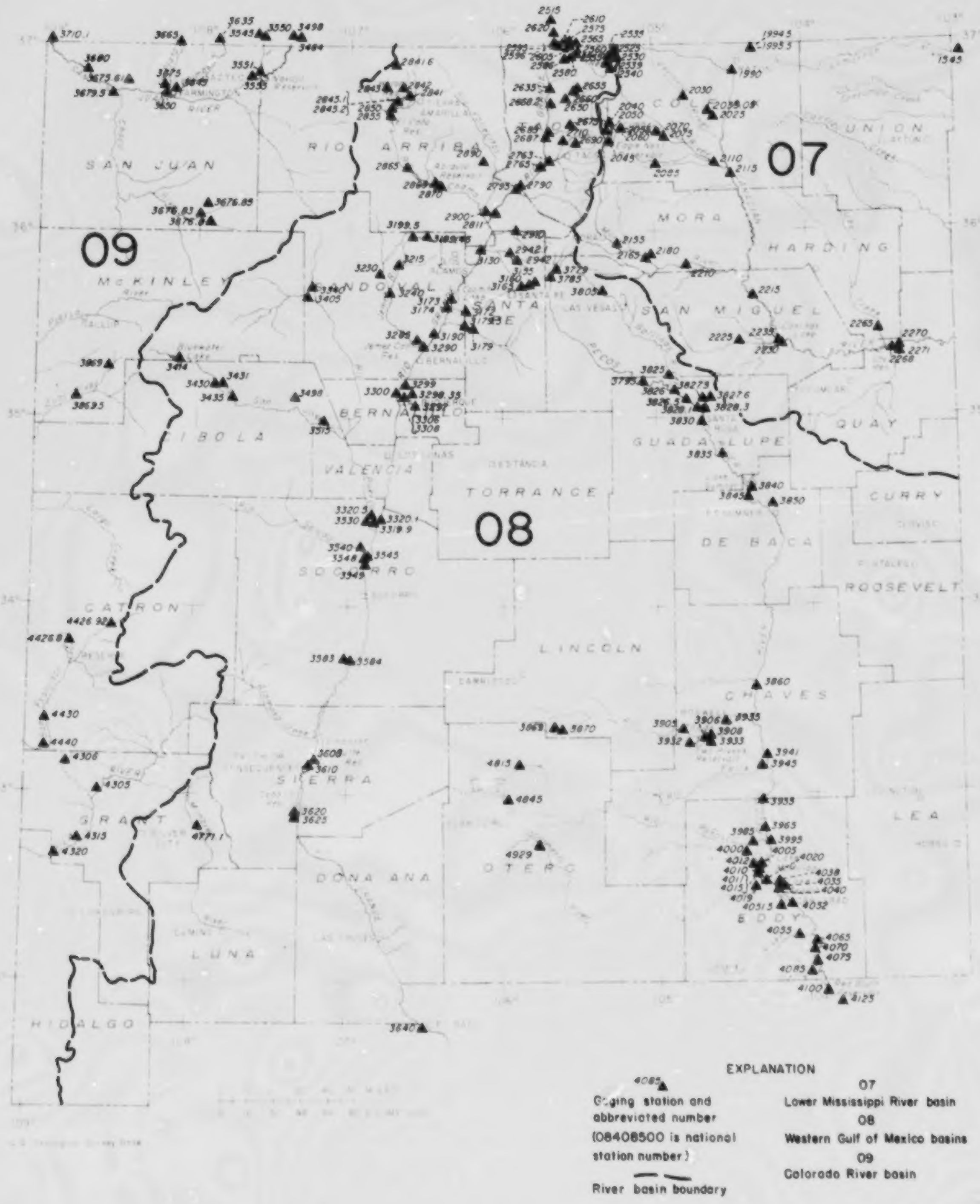
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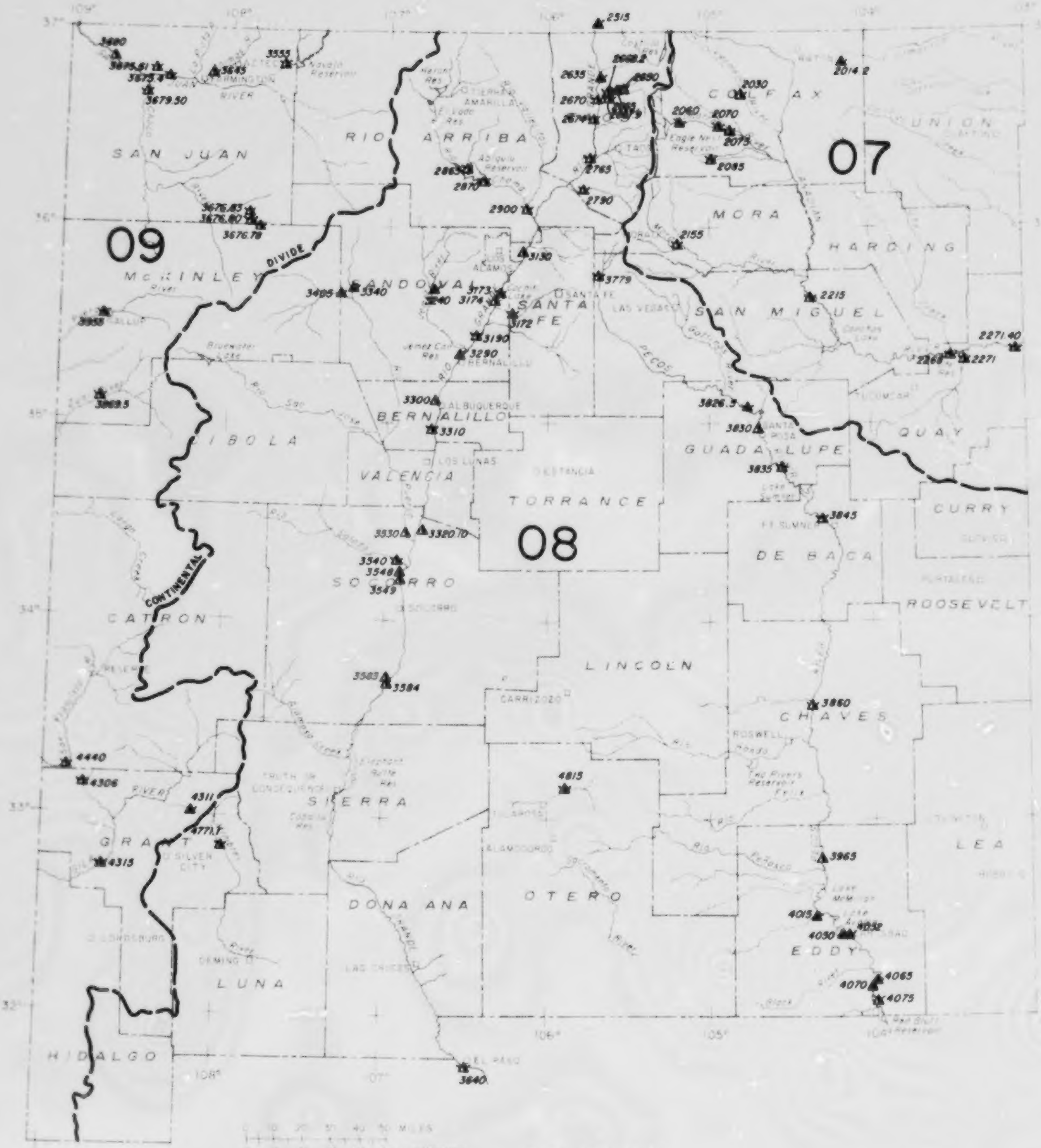
EXPLANATION
4085
Gaging station and abbreviated number (08408500 is national station number)
River basin boundary
07
Lower Mississippi River basin
08
Western Gulf of Mexico basins
09
Colorado River basin

Figure 4.--Map of New Mexico showing location of surface-water gaging stations.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SANTA FE
LAS VEGAS
SANTA ROSA
FT. SUMNER
ROSWELL
CARRIZOZO
TRUTH OR CONSEQUENCES
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LORDSBURG
LAS CRUCES
EL PASO
ALAMOGORDO
CARLSBAD
0 10 20 30 40 50 MILES
0 16 32 48 64 80 KILOMETERS

U.S. Geological Survey Base

EXPLANATION

STATION AND SAMPLING FREQUENCY

Chemical quality: ▲ daily ▲ other than daily

Suspended sediment: △ daily △ other than daily

Chemical quality and Suspended sediment: ▲ both daily ▲ both other than daily

▲ daily chemical quality and other than daily suspended sediment

▲ daily suspended sediment and other than daily chemical quality

BASIN AND STATION NUMBER

River basin boundary: ⁓

Lower Mississippi River basin number: 07

Western Gulf of Mexico basin number: 08

Colorado River basin number: 09

2271.40

Number by symbol is abbreviated station number. Complete station number of example is:

07 227140

Basin no. Station no.

Figure 5.--Map of New Mexico showing location of water-quality gaging stations.

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LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07154500 CIMARRON RIVER NEAR KENTON, OK

LOCATION.--Lat 36°55'36", long 102°57'31", in SE¼ sec.4, T.5 N., R.1 E., Cimarron County, Hydrologic Unit 11040001, near right bank on downstream side of pier of county road bridge, 1.5 mi upstream from North Carrizo Creek, 1.7 mi northeast of Kenton, 2.2 mi downstream from Carrizozo Creek, and at mile 594.0.

DRAINAGE AREA.--1,106 mi^2, of which 68 mi^2 is probably noncontributing.

PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.

REVISED RECORDS.--WSP 1711: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft National Geodetic Vertical Datum of 1929, (levels by State Highway Department). April 1904 to July 1905 nonrecording gage at site 0.9 mi upstream at different datum. Oct. 1, 1950 to Sept. 19, 1967, water-stage recorder at same site and at datum 5.00 ft higher.

REMARKS.--Records fair below 100 ft^3/s and poor above. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--34 years (water years 1951-84), 21.1 ft^3/s, 15,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft^3/s Oct. 17, 1965, gagr height, 22.32 ft; present datum, from rating curve extended above 7,000 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 5	2145	*4870	13.34	Aug. 23	0445	2400	11.35

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	1.4	2.6	1.3	2.0	3.0	1.6	3.0	.05	1.0
2	.00	.00	.00	1.2	2.1	1.6	2.4	2.7	1.0	3.2	6.9	3.1
3	.00	.00	.00	1.7	1.7	1.8	1.7	3.0	1.0	2.7	3.2	2.6
4	.00	.00	.00	2.0	1.7	1.9	1.4	2.2	33	2.4	.50	1.6
5	.00	.00	.00	2.2	1.6	1.7	1.2	5.5	2.2	349	.05	.44
6	.00	.00	.00	5.2	1.6	1.3	1.2	5.7	.75	230	.00	.05
7	.00	.00	.00	7.2	1.5	1.2	1.0	2.9	.38	19	.00	.00
8	.00	.00	.00	5.4	1.7	1.1	1.1	2.7	.22	3.5	.00	.00
9	.00	.00	.00	4.9	1.4	1.1	.54	2.8	.10	1.0	.23	.00
10	.00	.00	.00	4.2	1.2	1.1	48	2.5	.10	.25	.19	.00
11	.00	.00	.00	4.8	1.1	1.0	18	1.4	.16	2.3	.09	.00
12	.00	.00	.03	5.2	1.0	.81	48	1.5	.27	.39	.02	.00
13	.00	.00	.12	4.3	.96	.59	64	1.3	7.8	.10	.00	.00
14	.00	.00	.16	2.3	1.1	.57	28	2.0	1.3	.00	.00	.00
15	.00	.00	.17	1.6	.90	.44	14	.90	.59	.02	94	.00
16	.00	.00	.15	1.1	.85	.23	3.3	.76	23	66	32	.00
17	.00	.00	.22	.23	.99	.32	2.8	3.1	9.1	11	5.3	.00
18	.00	.00	.16	.16	2.1	.78	1.3	7.6	2.8	2.5	.68	.00
19	.00	.00	.15	.17	1.4	2.6	.90	6.7	2.5	.80	.07	.00
20	.00	.00	.17	.20	1.5	2.6	.83	11	1.8	.18	21	.00
21	.00	.00	.14	.24	1.4	.91	1.2	2.4	1.2	.03	12	.00
22	.00	.00	.12	.34	1.3	.35	1.8	1.9	.40	.00	.59	.00
23	.00	.00	.12	.54	1.1	1.2	2.0	2.0	.73	.00	845	.00
24	.00	.00	.11	.56	1.1	2.6	1.2	2.5	.28	.00	107	.00
25	.00	.00	.10	1.1	1.1	2.2	.54	1.2	54	.00	21	.00
26	.00	.00	.17	1.9	1.1	2.0	.38	2.0	13	.00	11	.00
27	.00	.00	.19	2.7	1.4	2.3	.39	2.0	3.8	.00	7.7	.00
28	.00	.00	.17	3.4	1.1	2.4	.39	1.8	2.8	.00	5.7	.00
29	.00	.00	.18	3.6	1.2	1.6	2.6	1.6	2.1	.00	4.2	.00
30	.00	.00	.20	3.2	---	1.4	3.7	2.0	1.6	.00	3.0	.00
31	.00	---	.43	2.8	---	2.2	---	1.6	---	.00	1.9	---
TOTAL	.00	.00	3.26	75.84	39.80	43.20	255.87	90.26	169.58	697.37	1183.37	8.79
MEAN	.00	.00	.11	2.45	1.37	1.39	8.53	2.91	5.65	22.5	38.2	.29
MAX	.00	.00	.43	7.2	2.6	2.6	64	11	54	349	845	3.1
MIN	.00	.00	.00	.16	.85	.23	.38	.76	.10	.00	.00	.00
AC-FT	.00	.00	6.5	150	79	86	508	179	336	1380	2350	17

CAL YR 1983	TOTAL	2703.12	MEAN	7.41	MAX	228	MIN	.00	AC-FT	5360
WTR YR 1984	TOTAL	2567.34	MEAN	7.01	MAX	845	MIN	.00	AC-FT	5090

07199000 CANADIAN RIVER NEAR HEBRON, NM

LOCATION.--Lat 36°47'14", long 104°27'42", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near right bank at downstream end of bridge pier on U.S. Highways 64 and 85, 3.1 mi north of Hebron, 5.0 mi upstream from Chicorica Creek, 8.0 mi south of Raton, and at mile 888.1.

DRAINAGE AREA.--229 mi^2.

PERIOD OF RECORD.--June 1946 to current year.

REVISED RECORDS.--WSP 1281: 1946, 1947-48(P), 1949. WSP 1921: 1960(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,248 ft, from topographic map. See WSP 1921 for history of changes prior to Aug. 18, 1965.

REMARKS.--Records poor. Diversions above station for irrigation of a few hundred acres. Part or all of low flow can be diverted to left bank 1.6 mi above station for stock water, off-channel storage and irrigation.

AVERAGE DISCHARGE.--38 years, 8.21 ft^3/s, 5,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,400 ft^3/s June 17, 1965, gage height, 28.2 ft, from floodmarks, present datum, from rating curve extended above 1,300 ft^3/s on basis of slope-area measurement of peak flow; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1942 reached a stage of about 28 ft, present datum, at site 150 ft upstream, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 1	1730	4600	6.59	Aug. 12	2300	*10500	9.27
July 11	1815	3040	5.87	Aug. 14	1730	7830	8.06
July 31	1930	7480	7.90	Sept. 18	2300	1300	4.98

No flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.8	2.1	2.6	3.3	.14	.05	.05	.00	288	37	2.7
2	2.1	3.0	2.5	2.6	3.3	.17	.10	.05	.00	4.6	54	.90
3	2.1	3.4	2.5	2.6	3.3	.20	.10	.04	.00	24	29	.90
4	1.9	3.4	2.5	2.5	3.3	.18	.05	.04	.00	1.5	21	.90
5	2.1	3.4	3.0	2.5	3.2	.16	.04	.07	.00	1.4	23	.80
6	1.9	3.4	2.5	2.5	3.1	.02	.05	.05	.00	1.3	21	.80
7	1.7	3.4	2.0	2.5	3.2	.20	9.4	.04	.00	1.0	18	.70
8	1.7	3.4	2.3	2.6	3.4	.20	54	1.3	.00	.70	17	3.4
9	1.9	3.8	2.4	2.1	3.4	.20	97	4.2	.00	.40	17	.80
10	.80	4.2	2.5	2.3	3.8	.20	82	1.5	.00	.10	10	.80
11	.20	4.2	2.7	2.4	3.8	.10	125	.05	.00	140	37	.70
12	.20	4.2	2.7	2.4	4.2	.10	82	.04	.00	10	771	.60
13	.20	4.2	2.7	2.5	4.2	.10	54	.03	.04	8.3	193	.60
14	.20	4.2	2.4	2.6	3.4	.10	40	.03	3.1	7.2	546	.60
15	.20	4.2	1.9	2.6	5.1	.10	28	.03	.02	7.2	10	.60
16	.20	4.2	2.5	2.7	3.4	.10	20	.04	4.4	30	7.2	.60
17	.20	4.2	2.7	2.8	3.4	.10	5.6	.04	.03	9.4	6.2	.50
18	.20	4.6	2.7	3.0	3.4	.10	5.1	.03	3.0	7.2	52	.50
19	.20	3.4	2.7	3.2	3.0	.10	12	.03	.03	6.7	40	.40
20	.20	3.8	2.7	4.2	4.2	.10	15	.03	.02	6.7	12	.40
21	.20	3.8	2.7	3.8	3.8	.10	13	.03	.01	6.2	9.4	.40
22	.20	3.8	2.7	1.3	1.3	.20	12	.03	.00	6.2	10	1.0
23	.20	3.4	2.7	.50	.50	.10	9.4	.03	.00	6.2	30	1.3
24	.20	3.8	2.7	.07	.07	.10	8.3	.03	.00	6.2	28	1.7
25	.20	3.4	2.7	.08	.08	.10	7.2	.02	.00	6.2	12	1.9
26	.20	3.3	2.6	.09	.09	.10	6.7	.02	.00	6.2	12	2.4
27	.20	2.9	2.6	.11	.11	.10	3.0	.02	1.9	8.5	13	2.7
28	.90	2.5	2.6	.12	.12	.20	.10	.02	.03	10	7.8	2.7
29	2.4	2.3	2.6	.12	.12	.10	.10	.02	.01	6.7	7.8	3.4
30	2.7	2.0	2.6	3.2	---	.10	.07	.01	.01	9.4	7.2	3.8
31	2.7	---	2.6	3.2	---	.05	---	.00	---	537	6.7	---
TOTAL	30.40	107.6	79.1	65.79	77.59	3.92	689.36	7.92	12.60	1164.50	2065.3	39.50
MEAN	.98	3.59	2.55	2.12	2.68	.13	23.0	.26	.42	37.6	66.6	1.32
MAX	2.7	4.6	3.0	4.2	5.1	.20	125	4.2	4.4	537	771	3.8
MIN	.20	2.0	1.9	.07	.07	.02	.04	.00	.00	.10	6.2	.40
AC-FT	60	213	157	130	154	7.8	1370	16	25	2310	4100	78

CAL YR 1983 TOTAL 5788.99 MEAN 15.9 MAX 238 MIN .00 AC-FT 11480
WTR YR 1984 TOTAL 4343.58 MEAN 11.9 MAX 771 MIN .00 AC-FT 8620

07199450 LAKE MALOYA NEAR RATON, NM

LOCATION.--Lat 36°59'02", long 104°22'24", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 6.5 mi northeast of Raton, and at mile 21.5.

DRAINAGE AREA.--20.8 mi^2.

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1907; capacity, 59 acre-ft. Reservoir enlarged in 1916; capacity, 1,130 acre-ft, spillway elevation, 7,479.0 ft. Reservoir enlarged again in 1948; capacity, 3,690 acre-ft, spillway elevation, 7,511.0 ft. Elevation of lowest outlet, 7,439.0 ft. No dead storage. Water is for municipal use of city of Raton. See table below for total monthly diversion, in acre-feet, from Lake Maloya and Lake Alice for municipal supply for city of Raton.

COOPERATION.--Month-end elevations furnished by city of Raton. Capacity table furnished by New Mexico Interstate Stream Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,970 acre-ft May 31, 1975, elevation, 7,510.79 ft; maximum elevation observed, 7,512.00 ft April 30, 1983; minimum observed, 911 acre-ft Feb. 28, 1979, elevation, 7,479.85 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 3,770 acre-ft at month-end April 30, elevation, 7,511.70 ft; minimum observed, 3,350 acre-ft Jan. 31, elevation, 7,508.20 ft.

07199550 LAKE ALICE NEAR RATON, NM

LOCATION.--Lat 36°57'15", long 104°23'06", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 4.4 mi northeast of Raton, and at mile 19.2.

DRAINAGE AREA.--29.4 mi^2.

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Nonrecording gage. Altitude of gage is National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1892; capacity 100 acre-ft, spillway elevation, 7,078.0 ft. Reservoir rehabilitated in 1941; capacity, 71 acre-ft, spillway elevation, 7,089.6 ft. Elevation of lowest outlet, 7,064.1 ft. No dead storage. Water is for municipal use of city of Raton. See table below for total monthly diversion, in acre-feet, from Lake Maloya and Lake Alice for municipal supply for city of Raton.

COOPERATION.--Month-end elevations furnished by city of Raton.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 73 acre-ft Apr. 30, May 31, 1983, elevation, 7,090 ft; minimum observed, 40 acre-ft May 31, 1978, elevation, 7,083.27 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 71 acre-ft all year, elevation, 7,089.60 ft; minimum observed, 71 acre-ft all year.

MONTHEND ELEVATION AND CONTENTS AND MONTHLY DIVERSIONS, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Monthly diversions from Lake Maloya and Lake Alice (acre-feet)
	07199450 LAKE MALOYA			07199550 LAKE ALICE			
Sept. 30, 1983....	7,508.18	3,350	-	7,089.60	71	-	-
Oct. 31..........	7,508.22	3,360	+10	7,089.60	71	0	129
Nov. 30..........	7,508.51	3,390	+30	7,089.60	71	0	98
Dec. 31..........	7,507.95	3,320	-70	7,089.60	71	0	89
CAL YR 1983	-	-	-160	-	-	0	1,560
Jan. 31, 1984....	7,508.20	3,350	+30	7,089.60	71	0	82
Feb. 29..........	7,510.40	3,620	+70	7,089.60	71	0	91
Mar. 31..........	7,511.40	3,740	+120	7,089.60	71	0	90
Apr. 30..........	7,511.70	3,770	+30	7,089.60	71	0	114
May 31..........	7,511.38	3,740	-30	7,089.60	71	0	172
June 30..........	7,511.25	3,720	-20	7,089.60	71	0	200
July 31..........	7,510.51	3,630	-90	7,089.60	71	0	221
Aug. 31..........	7,510.65	3,650	+20	7,089.60	71	0	161
Sept. 30..........	7,510.35	3,610	-40	7,089.60	71	0	162
WTR YR 1984	-	-	+260	-	-	0	1,609

07201420 UNA DE GATO CREEK BELOW THROTTLE DAM NEAR RATON, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°48'52", long 104°13'57", in SE¼SW¼ sec.24, T.30 N., R.25 E., Colfax County, Hydrologic Unit 11080001, on right bank 1.0 mi downstream from Throttle Dam and 13 mi southeast of Raton.

DRAINAGE AREA.--49.5 mi^2.

PERIOD OF RECORD.--Water years 1975 to current year (discontinued).

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV										
16...	0930	.02	1130	1080	8.2	8.0	14.0	3.0	540	270

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV										
16...	120	59	66	1	3.2	400	9.8	.40	8.8	830

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
16...	0930	1	1	50	<1	<1	<10	<10	8	2

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
16...	22	2	<1	1.0	<.1	1	1	40	10

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM

LOCATION.--Lat 36°38'55", long 104°33'31", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank 25 ft upstream from concrete drop structure, 300 ft upstream from Crow Creek, and 7.5 mi north of Maxwell.

PERIOD OF RECORD.--December 1944 to July 1950 (monthly discharge only October 1945 to July 1950), May 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,110 ft, from topographic map. Prior to May 1975, at site about 200 ft upstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Eagle Tail ditch diverts water from Chicorica Creek for use near Maxwell. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years (water years 1946-49, 1976-84), 6.49 ft^3/s, 4,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 217 ft^3/s Aug. 27, 1946, from rating curve extended above 85 ft^3/s; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 176 ft^3/s May 17, from rating curve extended above 85 ft^3/s; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.95	.00	.01	.00	.30	1.5	19	50	30	6.7	15	3.2
2	.87	.00	.01	.00	.29	2.9	21	67	27	64	78	3.0
3	.63	.00	.01	.00	.27	3.0	17	81	26	11	30	3.4
4	.89	.00	.01	.00	.24	4.1	16	90	26	9.5	6.7	4.2
5	.58	.00	.01	.00	.08	3.0	18	101	22	6.6	4.7	3.4
6	.64	.00	.01	.00	.07	1.4	40	163	21	5.0	4.2	3.3
7	.66	.00	.01	.00	.08	1.4	78	162	19	4.2	8.5	3.0
8	.58	.00	.02	.00	.25	.99	134	90	16	4.0	8.3	3.0
9	.61	.00	.09	.00	.27	1.1	121	49	15	3.8	4.6	2.7
10	.76	.00	.12	.00	.27	1.0	22	65	12	3.8	2.4	2.3
11	.86	.00	.20	.00	.28	1.1	67	71	9.6	3.1	2.0	2.1
12	.63	.00	.18	.00	.28	1.3	58	78	8.6	6.9	2.4	2.0
13	.84	.00	.20	.00	.28	1.3	47	133	8.0	4.1	22	1.9
14	1.1	.28	.16	.00	.29	1.2	44	125	25	2.4	11	1.8
15	1.3	.23	.10	.00	.30	6.8	30	131	28	17	142	1.7
16	1.2	.17	.07	.00	.30	19	23	142	21	23	40	1.6
17	1.1	.11	.05	.00	.31	21	19	176	21	8.3	9.4	1.6
18	.94	.42	.03	.00	.27	23	60	133	26	4.3	4.9	1.6
19	1.3	.60	.02	.00	.28	18	145	33	45	2.9	57	1.7
20	1.2	.57	.00	.00	.30	23	145	19	28	2.2	23	2.6
21	1.3	.78	.00	.00	.30	23	143	34	20	1.7	11	3.5
22	.80	1.0	.00	.10	.32	38	90	78	16	1.3	5.8	4.3
23	.14	.43	.00	.11	.34	34	70	70	15	1.1	12	6.9
24	.02	.31	.00	.13	.34	24	69	70	13	.98	13	5.3
25	.00	.63	.00	.15	.40	33	82	66	11	.86	6.4	4.5
26	.00	.63	.00	.23	.86	37	139	56	10	.73	3.6	4.2
27	.00	.08	.00	.29	.57	35	145	52	8.9	.70	5.7	4.6
28	.00	.01	.00	.32	.75	27	79	46	17	1.3	5.4	4.9
29	.00	.01	.00	.35	.84	27	63	39	8.0	2.3	3.6	5.3
30	.00	.01	.00	.30	---	22	56	35	6.8	1.8	3.3	6.6
31	.00	---	.00	.35	---	21	---	33	---	4.6	3.2	---
TOTAL	19.90	6.27	1.31	2.33	9.73	457.19	2060	2538	559.9	210.17	549.1	100.2
MEAN	.64	.21	.042	.075	.34	14.7	68.7	81.9	18.7	6.78	17.7	3.34
MAX	1.3	1.0	.20	.35	.86	38	145	176	45	64	142	6.9
MIN	.00	.00	.00	.00	.07	.99	16	19	6.8	.70	2.0	1.6
AC-FT	39	12	2.6	4.6	19	907	4090	5030	1110	417	1090	199

CAL YR 1983 TOTAL 4463.66 MEAN 12.2 MAX 116 MIN .00 AC-FT 8850
WTR YR 1984 TOTAL 6514.10 MEAN 17.8 MAX 176 MIN .00 AC-FT 12920

07203000 VERMEJO RIVER NEAR DAWSON, NM

LOCATION.--Lat 36°40'50", long 104°47'08", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank 1.3 mi north of Dawson, 2.3 mi upstream from Rail Canyon, and at mile 28.2.

DRAINAGE AREA.--301 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1915 to July 1918, April 1919 to May 1921, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: 1947, drainage area. WSP 1281: 1932(M), 1934(M), 1936-38(M), 1941-42(P), 1944-46(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,365 ft, from topographic map. See WSP 1311 or 1731 for history of changes prior to Sept. 24, 1953.

REMARKS.--Water-discharge records fair except those for winter period and those for August, which are poor. Diversions for irrigation of small acreage and mountain meadows above station.

AVERAGE DISCHARGE.--60 years (water years 1916-17, 1920, 1928-84), 18.2 ft^3/s, 13,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1926).--Maximum discharge, 12,600 ft^3/s June 17, 1965, gage height 15.25 ft, from rating curve extended above 400 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,040 ft^3/s Aug. 24, gage height, 7.20 ft; minimum discharge, 4.0 ft^3/s Jan. 25, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	8.3	8.5	7.8	10	10	8.0	9.1	35	18	31	18
2	9.6	8.4	9.5	8.1	12	9.8	7.9	9.1	41	18	60	17
3	9.6	8.4	9.3	8.4	12	9.5	7.8	9.7	41	15	27	20
4	9.1	8.4	9.0	8.8	12	9.1	7.5	10	36	16	17	19
5	9.1	8.5	8.8	8.7	12	8.7	7.4	11	30	15	17	18
6	9.1	8.5	8.7	8.5	12	10	7.3	13	28	13	20	17
7	9.1	8.2	8.4	7.9	12	8.0	7.8	15	26	14	18	16
8	9.3	8.2	8.6	7.7	12	8.0	7.8	15	25	12	20	16
9	9.7	8.4	8.6	7.5	11	8.0	8.0	16	23	13	18	16
10	10	8.3	8.7	7.3	11	8.0	7.4	16	22	11	16	16
11	9.2	8.5	8.9	7.1	11	8.0	7.5	18	25	12	15	16
12	9.1	8.7	8.9	7.0	11	8.0	6.9	22	23	13	14	16
13	9.1	8.7	8.9	7.0	11	8.0	7.0	25	21	11	37	16
14	9.1	8.7	8.7	6.9	11	8.0	7.2	28	24	12	20	15
15	9.4	8.8	8.5	6.9	10	8.1	7.3	30	23	13	25	15
16	9.5	8.6	8.1	6.8	10	7.9	7.2	40	39	29	17	15
17	9.5	8.3	7.7	6.7	10	7.8	7.3	51	25	16	16	15
18	8.8	8.2	8.0	6.6	10	8.0	7.9	44	23	14	15	15
19	8.2	8.0	8.1	6.5	10	8.0	8.3	44	34	13	134	15
20	8.2	7.8	8.4	6.4	10	7.8	8.7	43	25	12	37	15
21	8.3	7.7	8.8	6.2	10	8.0	9.3	41	21	11	25	15
22	8.2	7.2	9.3	6.1	10	8.0	9.4	39	20	10	17	15
23	8.2	6.7	9.2	5.9	10	8.0	9.0	41	19	9.6	61	14
24	8.1	6.1	9.0	5.8	10	7.9	8.7	43	21	9.2	259	14
25	8.1	6.4	8.7	5.3	10	8.0	8.8	42	21	9.6	32	14
26	8.4	6.7	7.9	5.6	10	8.0	9.3	41	23	8.5	25	14
27	8.3	7.3	7.9	6.4	10	8.0	9.7	40	20	8.2	22	14
28	8.2	7.5	7.8	7.1	10	7.7	9.0	39	18	12	29	19
29	8.2	7.9	7.9	8.0	11	8.0	11	39	16	13	21	16
30	8.4	8.2	7.9	8.6	---	7.9	10	35	16	12	20	15
31	8.5	---	7.9	9.3	---	7.9	---	33	---	12	19	---
TOTAL	275.3	239.6	264.6	222.9	311	256.1	246.4	901.9	764	405.1	1104	476
MEAN	8.88	7.99	8.54	7.19	10.7	8.26	8.21	29.1	25.5	13.1	35.6	15.9
MAX	10	8.8	9.5	9.3	12	10	11	51	41	29	259	20
MIN	8.1	6.1	7.7	5.3	10	7.7	6.9	9.1	16	8.2	14	14
AC-FT	546	475	525	442	617	508	489	1790	1520	804	2190	944

CAL YR 1983 TOTAL 11829.7 MEAN 32.4 MAX 221 MIN 6.1 AC-FT 23460
WTR YR 1984 TOTAL 3466.9 MEAN 14.9 MAX 259 MIN 5.3 AC-FT 10840

07203000 VERMEJO RIVER NEAR DAWSON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945-51, 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV 15...	1600	9.3	425	415	8.2	8.2	8.0	4.0	--	180	13
JAN 25...	1140	6.4	490	--	6.7	--	7.0	.0	11.4	--	--
MAR 06...	1400	10	400	451	8.7	8.3	6.0	2.0	12.2	170	3
JUN 06...	1000	26	235	253	8.3	8.3	25.0	12.0	8.7	110	14
JUL 10...	1300	10	310	323	8.6	8.6	25.0	24.0	6.9	130	10

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV 15...	51	12	27	.9	1.6	59	4.1	.70	9.6	260
JAN 25...	--	--	--	--	--	--	--	--	--	--
MAR 06...	49	12	28	1	1.6	65	5.2	.70	8.1	270
JUN 06...	32	6.5	13	.6	1.9	29	2.2	.80	11	150
JUL 10...	38	8.2	18	.7	1.7	37	3.0	.80	8.6	190

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV 15...	1600	<1	<1	10	<1	<1	<10	<10	6	2
MAR 06...	1400	--	--	20	--	--	--	--	--	--
JUN 06...	1000	--	--	10	--	--	--	--	--	--
JUL 10...	1300	--	--	10	--	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 15...	8	1	1	.1	<.1	1	1	30	5
MAR 06...	18	--	--	--	--	--	--	--	--
JUN 06...	66	--	--	--	--	--	--	--	--
JUL 10...	36	--	--	--	--	--	--	--	--

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07203000 VERMEJO RIVER NEAR DAWSON, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 15...	1600	9.3	4.0	63	1.6	91
JAN 25...	1140	6.4	.0	52	.90	--
MAR 06...	1400	10	2.0	6	.16	--
JUN 06...	1000	26	12.0	44	3.1	94
JUL 10...	1300	10	24.0	16	.43	85
AUG 21...	1200	22	22.5	185	11	--

07203505 VERMEJO DITCH NEAR COLFAX, NM

LOCATION.--Lat 36°34'42", long 104°41'33", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on right bank 2.8 mi southeast of Colfax, and 5.7 mi downstream from head.

PERIOD OF RECORD.--December 1980 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,155 ft, from topographic map.

REMARKS.--Records poor. Vermejo ditch diverts water from Vermejo River for use on the Vermejo Project. Three small diversions from Vermejo ditch upstream from gage. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 124 ft^3/s June 14, 1983; no flow several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 122 ft^3/s May 17; minimum daily, 1.0 ft^3/s June 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.0	3.8	1.8	1.1	8.5	4.7	2.6	14	7.1	32	11
2	6.1	4.1	3.7	1.7	1.1	6.5	5.5	2.1	18	10	63	12
3	6.0	4.3	3.6	1.7	1.2	5.3	4.8	2.0	22	14	49	17
4	6.1	4.5	3.5	1.6	1.2	4.0	4.7	2.2	15	10	18	16
5	6.2	4.6	3.4	1.6	1.2	3.5	5.3	3.2	7.3	9.1	17	11
6	5.7	4.7	3.3	1.6	1.2	3.3	4.6	3.5	4.6	5.4	18	11
7	4.6	4.8	3.2	1.5	1.2	5.5	3.5	5.0	3.6	8.0	16	11
8	4.6	4.8	3.1	1.5	1.2	6.3	3.2	8.7	2.0	10	16	10
9	5.5	4.8	3.0	1.5	1.2	8.1	3.6	9.5	1.4	9.7	15	10
10	6.2	4.7	3.0	1.4	1.2	7.9	4.2	7.5	1.0	6.1	16	9.9
11	6.0	4.6	2.9	1.4	1.2	7.1	3.6	5.3	1.6	3.3	16	9.7
12	5.9	4.4	2.9	1.4	1.2	6.7	2.5	9.7	1.8	5.3	15	9.5
13	5.3	4.0	2.8	1.4	1.2	5.9	1.6	20	2.8	5.8	45	9.2
14	5.6	4.3	2.8	1.3	1.2	5.7	2.7	32	4.1	12	22	9.0
15	5.9	3.9	2.8	1.3	1.4	5.3	2.9	28	3.5	15	28	8.9
16	7.1	2.7	2.7	1.3	1.6	5.5	3.2	51	13	34	21	19
17	6.6	3.5	2.6	1.3	1.8	5.7	2.8	122	12	25	20	10
18	5.8	7.0	2.5	1.3	2.0	5.9	3.6	95	8.0	9.9	20	10
19	5.0	6.6	2.5	1.2	2.2	9.1	4.3	76	12	5.6	67	10
20	4.8	6.1	2.4	1.2	2.3	5.7	5.1	78	13	4.6	30	10
21	4.7	5.7	2.3	1.2	2.5	5.6	5.1	74	4.9	3.2	13	9.9
22	4.7	6.4	2.3	1.2	3.3	4.8	5.3	54	3.2	4.0	10	9.9
23	4.7	6.8	2.2	1.2	3.5	5.6	4.6	64	9.0	4.0	55	9.9
24	3.9	5.4	2.1	1.2	3.3	5.5	3.7	69	11	2.5	63	9.9
25	3.6	5.2	2.1	1.2	3.2	5.7	2.9	56	16	2.4	72	9.9
26	4.1	5.0	2.0	1.2	3.0	6.0	2.5	55	20	2.3	50	9.7
27	4.1	4.8	2.0	1.2	4.1	7.3	2.8	60	15	2.1	29	9.9
28	4.1	4.4	1.9	1.2	4.3	6.8	3.5	45	9.3	2.3	40	18
29	4.0	4.1	1.9	1.2	5.9	6.4	4.9	43	5.9	4.1	25	14
30	4.0	3.9	1.8	1.2	---	5.0	3.2	28	5.5	4.5	13	12
31	3.9	---	1.8	1.2	---	5.6	---	14	---	20	12	---
TOTAL	159.0	144.1	82.9	42.2	61.0	185.8	114.9	1125.3	260.5	261.3	926	337.3
MEAN	5.13	4.80	2.67	1.36	2.10	5.99	3.83	36.3	8.68	8.43	29.9	11.2
MAX	7.1	7.0	3.8	1.8	5.9	9.1	5.5	122	22	34	72	19
MIN	3.6	2.7	1.8	1.2	1.1	3.3	1.6	2.0	1.0	2.1	10	8.9
AC-FT	315	286	164	84	121	369	228	2230	517	518	1840	669

CAL YR 1983 TOTAL 8516.42 MEAN 23.3 MAX 124 MIN .29 AC-FT 16890
WTR YR 1984 TOTAL 3700.30 MEAN 10.1 MAX 122 MIN 1.0 AC-FT 7340

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07204000 MORENO CREEK AT EAGLE NEST, NM

LOCATION.--Lat 36°33'14", long 105°16'03", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 175 ft upstream from U.S. Highway 64, 250 ft northwest of intersection of U.S. Highway 64 and State Highway 38, about 1,000 ft upstream from high-water line of Eagle Nest Lake at Eagle Nest.

DRAINAGE AREA.--73.8 mi^2.

PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (no winter records except water year 1932). Monthly discharge only for some periods, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

REVISED RECORDS.--WSP 1281: 1931(M), 1932, 1935(M), 1939-41(M), 1946-47(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Oct. 3, 1952. Datum of gage is 8,197.39 ft National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Oct. 26, 1955. Oct. 26, 1955 to Nov. 12, 1974, water-stage recorder at site 160 ft downstream at datum 1.41 ft lower.

REMARKS.--Records good. Diversions for irrigation of about 1,200 acres above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft^3/s Sept. 1, 1946, gage height, 3.10 ft, site and datum then in use; maximum gage height, 3.55 ft May 12, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69 ft^3/s at 0830 hours May 16, gage height, 2.85 ft, no other peak above base of 35 ft^3/s; minimum determined, 0.72 ft^3/s Sept. 9-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.7					---	18	14	2.2	1.9	1.8
2	1.5	1.7					---	17	16	2.3	2.9	1.7
3	1.4	1.7					---	15	15	2.4	5.0	1.6
4	1.3	---					13	17	13	2.4	3.1	1.5
5	1.3	---					12	19	12	2.8	3.7	1.3
6	1.3	---					16	21	13	4.5	2.8	1.2
7	1.3	---					17	22	11	2.9	4.0	1.0
8	1.4	---					17	23	8.6	2.5	4.2	.90
9	1.6	---					20	23	6.3	2.5	3.3	.81
10	1.6	---					18	25	4.8	2.4	2.7	.76
11	1.5	---					21	28	4.5	2.2	2.4	.75
12	1.4	---					17	31	4.3	2.2	2.3	.78
13	1.4	---					19	35	4.3	2.0	2.3	.77
14	1.7	---					18	38	4.5	1.8	2.4	.81
15	1.9	---					19	40	4.4	1.7	2.9	.87
16	1.8	---					20	63	3.9	1.8	2.6	.98
17	1.7	---					22	62	3.6	2.0	2.3	1.1
18	1.7	---					24	54	3.5	1.9	2.2	1.1
19	1.7	---					25	47	3.4	1.8	4.0	1.1
20	1.6	---					27	43	3.0	1.7	3.6	1.3
21	1.7	---					25	37	2.6	1.4	2.9	1.2
22	1.6	---					23	32	2.3	1.3	2.7	1.2
23	1.6	---					20	30	2.1	1.2	2.8	1.1
24	1.6	---					19	32	1.8	1.2	2.6	1.1
25	1.6	---					24	30	1.8	1.2	2.3	1.4
26	1.6	---					25	25	1.8	1.1	2.2	1.4
27	1.6	---					21	20	1.9	1.0	2.2	1.3
28	1.7	---					21	18	1.8	1.0	2.6	1.3
29	1.7	---					21	18	1.7	.98	2.1	1.3
30	1.7	---					18	16	1.9	.96	2.1	1.0
31	1.7	---					---	14	---	1.3	1.9	---
TOTAL	48.6	---					---	913	172.8	58.64	87.0	34.43
MEAN	1.57	---					---	29.5	5.76	1.89	2.81	1.15
MAX	1.9	---					---	63	16	4.5	5.0	1.8
MIN	1.3	---					---	14	1.7	.96	1.9	.75
AC-FT	96	---					---	1810	343	116	173	68

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°29'07", long 105°15'54", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 0.1 mi downstream from Schoolhouse Draw, 0.4 mi upstream from high-water line of Eagle Nest Lake, 0.5 mi east of U.S. Highway 64, and 4.7 mi south of Eagle Nest.

DRAINAGE AREA.--56 mi^2.

PERIOD OF RECORD.--April 1928 to September 1955 and June 1964 to current year (no winter records except in water years 1932, 1948 and 1951). Monthly discharge only for some periods, published in WSP 1311 and 1731. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

REVISED RECORDS.--WSP 957: 1941. WSP 1281: Drainage area. WSP 1311: 1932(M), 1935(M), 1937(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Sept. 25, 1947. Altitude of gage is 8,195 ft, from topographic map. Prior to May 8, 1928, nonrecording gage, and May 8, 1928 to Sept. 1, 1934, water-stage recorder at site 0.2 mi downstream at different datums.

REMARKS.--Records good. Diversions for irrigation of about 1,000 acres above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 505 ft^3/s June 16, 1965, gage height, 5.61 ft, from rating curve extended above 110 ft^3/s; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft^3/s May 16, gage height, 4.76 ft, no other peak above base of 70 ft^3/s; minimum determined, 1.1 ft^3/s Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.6					---	44	15	4.5	7.2	4.0
2	2.6	1.6					---	50	15	5.1	28	3.8
3	2.4	1.7					---	61	14	4.7	37	3.8
4	2.1	---					14	92	13	4.1	14	3.6
5	2.1	---					17	103	13	4.2	9.8	3.5
6	2.1	---					21	118	14	4.5	7.1	3.0
7	2.1	---					25	116	12	3.6	11	3.7
8	2.1	---					38	101	10	2.9	8.5	2.9
9	2.3	---					47	98	9.8	3.0	7.1	2.3
10	2.2	---					45	99	9.4	3.8	5.7	2.1
11	2.0	---					49	101	8.6	4.0	4.8	2.0
12	2.0	---					40	100	7.9	4.0	4.9	2.1
13	1.9	---					52	97	8.5	3.3	9.2	2.0
14	2.5	---					53	87	10	2.9	7.1	2.2
15	2.5	---					47	80	8.9	2.5	10	2.9
16	2.3	---					48	138	7.7	7.9	6.9	2.9
17	2.3	---					53	121	7.1	5.1	5.2	3.0
18	2.2	---					61	91	9.2	3.6	4.6	2.9
19	2.3	---					62	73	12	3.0	4.5	2.5
20	2.2	---					67	60	9.4	2.7	4.5	2.4
21	2.2	---					52	50	7.0	2.2	3.7	2.2
22	2.0	---					45	44	5.8	1.9	4.0	2.0
23	1.5	---					43	39	5.5	1.8	8.8	1.9
24	1.5	---					41	35	5.2	1.7	7.0	1.8
25	1.4	---					53	31	4.8	1.9	5.5	2.2
26	1.4	---					58	27	4.7	1.8	5.4	2.5
27	1.5	---					55	24	5.1	1.9	5.2	2.2
28	1.6	---					49	22	5.6	2.2	5.0	2.1
29	1.5	---					53	20	4.7	3.3	4.8	2.1
30	1.5	---					47	18	5.0	2.6	4.7	1.8
31	1.6	---					---	16	---	3.9	4.5	---
TOTAL	62.4	---					---	2156	267.9	104.6	255.7	78.4
MEAN	2.01	---					---	69.5	8.93	3.37	8.25	2.61
MAX	2.6	---					---	138	15	7.9	37	4.0
MIN	1.4	---					---	16	4.7	1.7	3.7	1.8
AC-FT	124	---					---	4280	531	207	507	156

07205000 SIXMILE CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'07", long 105°16'29", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left upstream wingwall of concrete control, 250 ft downstream from concrete box culvert on U.S. Highway 64, and 2.6 mi southwest of Eagle Nest.

DRAINAGE AREA.--10.5 mi^2.

PERIOD OF RECORD.--April 1928 to September 1955 (no winter records in water years 1929-31, 1933-55), July 1958 to current year (no winter records subsequent to water year 1975). Prior to October 1930 monthly discharge only, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

REVISED RECORDS.--WSP 1311: 1932-33(M), 1935(M), 1943(M). WSP 1681: 1937(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control Sept. 11, 1931 to May 1933, and since Sept. 13, 1934. Datum of gage is 8,195.16 ft National Geodetic Vertical Datum of 1929. Prior to May 18, 1928, nonrecording gage at site 88 ft upstream at datum 0.98 ft higher. May 18, 1928 to Sept. 11, 1938, water-stage recorder at site 88 ft upstream at datum 0.43 ft higher.

REMARKS.--Records good. Diversions for irrigation of about 300 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1932, 1959-75), 2.51 ft^3/s, 1,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1930-55 and SINCE 1957).--Maximum discharge, 128 ft^3/s Aug. 5, 1969, gage height, 2.86 ft, from rating curve extended above 32 ft^3/s; maximum gage height recorded, 3.38 ft Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft^3/s at 0315 hours May 16, gage height, 1.95 ft, no other peak above base of 15 ft^3/s; minimum discharge determined, 0.32 ft^3/s Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5					---	5.9	7.8	3.3	1.2	.56
2	1.8	1.5					---	6.8	7.1	3.2	4.3	.53
3	1.7	1.5					---	8.7	6.6	3.2	1.9	.51
4	1.7	---					4.0	12	6.3	3.0	2.6	.49
5	1.7	---					4.4	16	6.3	2.7	3.1	.45
6	1.7	---					5.6	20	6.2	2.6	3.1	.42
7	1.7	---					6.5	21	5.6	2.3	2.9	.38
8	1.7	---					7.1	20	5.3	1.8	2.7	.38
9	1.8	---					8.1	21	4.9	1.2	2.3	.37
10	1.7	---					7.8	24	4.6	1.1	2.1	.36
11	1.7	---					8.4	25	4.5	1.0	2.0	.39
12	1.7	---					8.1	26	4.4	1.1	2.0	.47
13	1.6	---					8.3	24	4.8	.95	2.0	.46
14	1.8	---					8.9	23	4.8	.88	2.0	.52
15	1.8	---					9.4	25	4.9	.93	1.9	.56
16	1.7	---					10	42	4.4	1.0	1.8	.53
17	1.7	---					12	37	4.0	1.0	1.7	.57
18	1.6	---					14	30	4.8	.91	1.6	.51
19	1.6	---					14	26	5.3	.85	1.7	.49
20	1.6	---					15	23	4.6	.76	1.8	.48
21	1.6	---					9.8	21	4.3	.68	1.6	.46
22	1.6	---					6.9	20	4.2	.60	1.6	.44
23	1.6	---					6.1	19	4.0	.57	1.7	.43
24	1.5	---					6.6	18	3.9	.70	1.6	.40
25	1.5	---					8.4	16	3.5	.91	1.3	.54
26	1.6	---					9.5	14	3.4	.86	.69	.52
27	1.6	---					8.5	12	3.8	.92	.72	.50
28	1.5	---					7.5	9.6	3.7	.96	.75	.50
29	1.5	---					7.5	9.1	3.4	.86	.68	.49
30	1.5	---					6.1	8.5	3.4	.88	.62	.52
31	1.5	---					---	8.2	---	1.1	.58	---
TOTAL	51.1	---					---	591.8	144.8	42.82	56.54	14.23
MEAN	1.65	---					---	19.1	4.83	1.38	1.82	.47
MAX	1.8	---					---	42	7.8	3.3	4.3	.57
MIN	1.5	---					---	5.9	3.4	.57	.58	.36
AC-FT	101	---					---	1170	287	85	112	28

07205500 EAGLE NEST LAKE NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'53", long 105°13'44", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, at upstream face of Eagle Nest Dam on Cimarron River, 2.5 mi southeast of Eagle Nest, 6.7 mi west of Ute Park, and at mile 48.7.

DRAINAGE AREA.--167 mi^2.

PERIOD OF RECORD.--December 1927 to December 1944 (monthend contents only, published in WSP 1311), May 1950 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1972 published as Eagle Nest Reservoir.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Nonrecording gage usually read several times a month at random intervals. Datum of gage is 8,056.8 ft National Geodetic Vertical Datum of 1929. Prior to October 1964 gage heights were raised by addition of 8,000 ft and called elevations.

REMARKS.--Lake is formed by concrete dam with spillway cut in natural rock, completed June 30, 1918; storage began in June 1917. Capacity, 79,120 acre-ft between gage heights 35.0 ft, sill of outlet gate, and 137.0 ft, crest of ungated spillway. Dead storage negligible. Records given herein represent usable contents. Water released is used for irrigation. Lake is recreational area. Diversions for irrigation of about 2,500 acres above reservoir.

COOPERATION.--Supplemental gage readings furnished by Cimarron River watermaster.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 78,800 acre-ft May 31, 1942, gage height, 136.9 ft; minimum observed, 635 acre-ft Dec. 14, 1954, gage height, 61.33 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 58,190 acre-ft June 3, gage height, 127.60 ft; minimum observed, 46,490 acre-ft Dec. 1, gage height, 121.45 ft.

Capacity table (gage height in feet, and contents, in acre-feet)
(Based on data furnished by New Mexico State Engineer Office in 1950)

105	22850	115	35920	125	53050
110	28900	120	43940	130	63170

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	46490	46750	47560	---	---	53630	---	---	---	54410
2	48280	---	---	---	---	---	---	---	---	---	---	---
3	---	46770	---	---	---	---	---	---	58190	---	---	---
4	---	---	---	---	---	---	50100	---	---	---	---	---
5	48140	---	---	---	---	---	---	---	---	---	---	---
6	---	46750	---	---	---	---	---	54210	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	54820	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	47920	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	47340	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	57990	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	47460	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	57480	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	53420
20	---	---	---	---	---	---	---	57580	---	---	---	---
21	---	---	---	---	---	---	---	---	57460	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	47200	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	47560	---	---	---	---	---	---	---
30	46840	46540	---	---	---	---	---	---	57380	---	---	52860
31	---	---	46750	47560	---	49280	---	58190	---	54600	54410	---
(†)	121.65	121.48	---	122.05	122.05	123.00	---	127.60	---	---	---	---
(††)	-1560	-300	+210	+810	0	+1720	+4350	+4560	-810	-2780	-190	-1550

CAL YR 1983................ (††) +13350
WTR YR 1984................ (††) +4460

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET
NOTE.--Monthend contents interpolated or estimated on basis of inflow to and releases from Lake Dec. 31, Apr. 30, June 30, July 31, Aug. 31, Sept. 30.

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM

LOCATION.--Lat 36°31'55", long 105°13'43", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 300 ft downstream from Eagle Nest Dam, 2.5 mi southeast of Eagle Nest, 6.7 mi west of Ute Park, and at mile 48.6.

DRAINAGE AREA.--167 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek below Eagle Nest Dam October 1952 to September 1965.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Parshall flume since May 15, 1951. Altitude of gage is 8,080 ft, from topographic map. Prior to May 15, 1951, at datum 0.81 ft higher.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of 2,500 acres above station.

AVERAGE DISCHARGE.--34 years, 13.6 ft^3/s, 9,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 205 ft^3/s June 14, 1955, maximum gage height, 3.04 ft April 20, 1983; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 107 ft^3/s May 14, 15; minimum daily, 0.63 ft^3/s Nov. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	17	7.8	.90	1.9	4.6	4.3	16	17	10	22	13
2	19	8.2	5.2	.90	2.0	4.6	4.3	16	17	10	22	13
3	19	9.5	1.1	3.9	2.4	4.6	4.3	16	17	11	22	12
4	20	10	.86	7.1	3.4	4.3	4.3	16	17	13	22	12
5	20	6.7	.90	7.1	3.5	4.3	4.3	16	25	12	22	12
6	20	.63	.90	7.1	3.7	4.3	4.4	16	27	8.2	19	12
7	20	1.7	.90	7.1	3.7	4.3	4.6	16	21	8.2	12	12
8	20	2.1	.90	7.1	3.7	4.3	4.5	16	21	14	11	12
9	20	4.9	.90	7.1	3.7	4.3	4.3	16	21	23	5.3	12
10	20	5.0	.90	7.1	3.6	4.3	4.3	16	21	39	6.0	12
11	19	5.0	.90	7.3	4.0	4.4	3.8	16	21	43	6.0	16
12	21	4.9	.90	7.5	4.3	4.6	3.6	16	21	59	5.8	19
13	27	5.2	.90	7.5	4.3	4.6	4.4	82	22	100	7.6	19
14	27	5.4	.90	5.0	4.6	4.6	4.3	107	15	100	13	19
15	27	5.3	.90	1.5	7.1	4.6	10	107	11	100	16	19
16	27	5.7	.90	1.6	7.1	4.7	13	106	11	100	16	23
17	27	6.7	.90	1.6	7.1	5.0	13	75	12	100	16	27
18	27	7.1	.90	1.6	7.1	4.8	13	14	13	100	16	35
19	27	7.1	.90	1.6	7.1	4.6	13	14	13	100	15	35
20	27	7.1	.90	1.6	7.1	4.6	13	18	13	99	13	30
21	24	7.1	.90	1.6	7.1	4.6	13	18	25	99	13	24
22	22	7.1	.90	1.6	7.0	4.6	15	16	25	99	13	24
23	22	7.1	.90	1.7	6.8	4.6	16	15	36	99	13	24
24	21	7.1	.90	1.7	6.8	4.6	16	14	43	90	13	18
25	21	7.1	.90	1.7	6.8	4.3	16	12	38	46	13	12
26	21	7.1	.90	1.7	6.8	4.3	16	12	15	43	13	13
27	21	7.4	.90	1.7	6.8	4.3	16	15	10	27	13	13
28	21	7.5	.90	1.8	6.2	4.3	17	18	10	6.0	13	9.9
29	21	7.5	.90	1.8	4.6	4.3	17	18	9.8	8.1	13	6.2
30	21	7.7	.90	1.8	---	4.3	16	18	9.7	22	13	8.6
31	21	---	.90	1.8	---	4.3	---	17	---	22	13	---
TOTAL	689	197.93	39.26	111.10	150.3	138.9	292.7	888	577.5	1610.5	430.7	516.7
MEAN	22.2	6.60	1.27	3.58	5.18	4.48	9.76	28.6	19.3	52.0	13.9	17.2
MAX	27	17	7.8	7.5	7.1	5.0	17	107	43	100	22	35
MIN	19	.63	.86	.90	1.9	4.3	3.6	12	9.7	6.0	5.3	6.2
AC-FT	1370	393	78	220	298	276	581	1760	1150	3190	854	1020

CAL YR 1983 TOTAL 4374.71 MEAN 12.0 MAX 72 MIN .01 AC-FT 8680
WTR YR 1984 TOTAL 5642.59 MEAN 15.4 MAX 107 MIN .63 AC-FT 11190

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 19/5 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV											
03...	1030	11	335	324	8.1	7.9	7.0	9.5	--	150	0
JAN											
10...	1200	7.2	300	--	6.1	--	-6.0	1.5	--	--	--
APR											
04...	1530	4.6	350	385	8.1	7.8	12.0	7.0	10.2	170	0
JUN											
21...	1600	24	290	322	7.9	8.1	22.0	13.5	7.6	130	0
AUG											
07...	1230	12	335	337	7.4	7.8	22.0	15.0	7.2	150	0

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV										
03...	45	8.7	11	.4	2.6	14	4.7	.40	.8	180
JAN										
10...	--	--	--	--	--	--	--	--	--	--
APR										
04...	52	10	12	.4	2.7	12	5.4	.40	9.1	210
JUN										
21...	41	7.9	10	.4	2.3	14	4.8	.40	2.6	170
AUG										
07...	47	8.7	11	.4	2.5	13	4.7	.40	5.5	180

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
03...	1030	4	3	20	1	1	<10	<10	12	2
APR										
04...	1530	--	--	20	--	--	--	--	--	--
JUN										
21...	1600	--	--	20	--	--	--	--	--	--
AUG										
07...	1230	--	--	10	--	--	--	--	--	--

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
03...	11	10	<1	<.1	<.1	<1	<1	40	17
APR									
04...	20	--	--	--	--	--	--	--	--
JUN									
21...	14	--	--	--	--	--	--	--	--
AUG									
07...	29	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
03...	1030	11	9.5	77	2.3	95

07207000 CIMARRON RIVER NEAR CIMARRON, NM

LOCATION.--Lat 36°31'11", long 104°58'42", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 1,200 ft downstream from Turkey Creek Canyon, 3.6 mi west of Cimarron, and at mile 31.6.

DRAINAGE AREA.--294 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek near Cimarron, October 1952 to September 1965.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 6, 1963. Datum of gage is 6,599.58 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions above station for irrigation of about 3,500 acres, part of which is below station. Philmont ditch (formerly known as Cimarroncito ditch) diverts from left bank 1.5 mi above station, flumes under river 0.9 mi above and bypasses station for off-channel storage and irrigation below; Cimarron Diversion pipeline 300 ft above station for city of Raton Water Supply started June, 1983. See tabulation below for monthly diversions.

AVERAGE DISCHARGE.--34 years, 20.8 ft^3/s, 15,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft^3/s June 17, 1965, gage height, 12.42 ft, from floodmark, from rating curve extended above 800 ft^3/s on basis of slope-area measurements at gage heights 4.88 ft and 12.42 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 246 ft^3/s at 1845 hours Aug. 6, gage height, 2.77 ft; minimum daily, 2.4 ft^3/s Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	20	5.0	3.6	3.1	6.0	5.7	25	45	11	20	8.8
2	13	13	4.8	3.6	3.8	5.4	5.6	26	44	12	23	8.7
3	14	8.8	4.7	3.6	4.1	5.3	5.6	28	42	11	23	8.9
4	14	9.4	4.6	6.2	4.1	5.4	5.6	32	34	18	23	8.8
5	14	9.2	4.5	6.2	4.1	5.1	5.5	35	35	17	25	8.5
6	14	7.3	4.5	6.2	4.1	5.1	5.5	38	44	16	48	8.0
7	14	4.4	4.4	6.2	4.0	5.1	5.5	39	35	13	26	7.4
8	15	3.0	4.4	6.2	4.0	5.1	5.4	38	33	11	22	7.5
9	15	2.9	4.3	6.2	4.0	5.1	5.4	37	30	17	17	7.5
10	14	4.2	4.2	6.2	4.0	5.2	4.8	39	28	29	14	7.3
11	14	4.6	4.2	6.2	4.1	5.2	4.7	42	27	35	12	7.2
12	13	4.9	4.2	6.2	4.3	5.3	5.5	45	27	35	11	11
13	18	5.1	4.1	6.2	4.5	5.4	5.6	90	28	72	13	12
14	20	5.1	4.1	5.0	5.2	5.4	7.0	163	27	74	13	14
15	20	5.1	4.1	3.6	4.9	5.6	14	177	25	76	12	17
16	21	6.1	4.0	2.4	6.8	5.6	16	195	48	81	12	18
17	23	6.2	4.0	2.7	7.2	5.6	18	143	23	83	13	27
18	23	6.6	3.9	3.5	7.2	5.6	20	77	25	82	11	27
19	23	7.0	3.9	3.7	7.2	5.6	22	72	26	82	11	26
20	23	6.8	3.9	3.8	7.2	5.6	25	72	25	81	8.9	19
21	25	7.2	3.9	3.9	7.1	5.6	23	66	25	81	8.7	17
22	22	7.2	3.8	3.9	7.1	5.6	23	60	25	81	9.2	17
23	22	10	3.8	3.9	7.1	5.5	23	56	29	80	9.5	17
24	20	9.0	3.7	3.8	7.1	5.5	24	57	38	79	10	17
25	22	11	3.7	3.8	6.8	5.5	26	59	34	45	9.4	10
26	22	10	3.7	3.8	6.9	5.6	28	58	20	41	10	9.5
27	21	8.5	3.7	3.8	5.7	5.6	27	57	12	35	9.7	10
28	21	7.4	3.7	3.7	4.8	5.7	27	58	8.8	14	9.8	10
29	21	6.3	3.7	3.7	4.7	5.7	27	56	8.0	7.7	9.5	10
30	21	5.5	3.7	3.5	---	5.6	25	52	8.3	17	9.2	9.9
31	21	---	3.7	2.7	---	5.7	---	47	---	19	9.3	---
TOTAL	576	221.8	126.9	138.0	155.2	169.3	445.4	2039	859.1	1355.7	462.2	387.0
MEAN	18.6	7.39	4.09	4.45	5.35	5.46	14.8	65.8	28.6	43.7	14.9	12.9
MAX	25	20	5.0	6.2	7.2	6.0	28	195	48	83	48	27
MIN	13	2.9	3.7	2.4	3.1	5.1	4.7	25	8.0	7.7	8.7	7.2
AC-FT	1140	440	252	274	308	336	883	4040	1700	2690	917	768

CAL YR 1983 TOTAL 8837.1 MEAN 24.2 MAX 107 MIN 2.9 AC-FT 17530
WTR YR 1984 TOTAL 6935.6 MEAN 18.9 MAX 195 MIN 2.4 AC-FT 13760

07207000 CIMARRON RIVER NEAR CIMARRON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979, 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV												
15...	1200	6.0	360	364	8.1	8.2	8.0	3.5	--	12	170	15
JAN												
23...	1430	3.8	385	--	7.3	--	3.0	.0	11.2	--	--	--
MAR												
05...	1330	5.0	600	609	8.9	8.4	4.0	.0	12.6	--	270	110
JUN												
05...	1500	37	260	278	8.3	8.5	21.5	12.0	8.6	--	120	9
JUL												
09...	1200	17	290	346	8.5	8.4	22.0	20.0	7.3	25	160	17

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
15...	52	10	15	.5	1.8	31	5.9	.40	8.4	220	3.6
JAN											
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	72	21	33	.9	1.8	180	7.6	.40	8.3	420	--
JUN											
05...	38	7.3	11	.4	2.4	18	5.2	.40	7.6	160	--
JUL											
09...	50	8.8	14	.5	2.8	22	6.0	.40	7.3	200	5.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
15...	1200	1	1	10	< 1	< 1	< 10	< 10	10	2
MAR										
05...	1330	--	--	30	--	--	--	--	--	--
JUN										
05...	1500	--	--	20	--	--	--	--	--	--
JUL										
09...	1200	--	--	20	--	--	--	--	--	--

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
15...	6	2	2	.1	<.1	1	1	10	7
MAR									
05...	14	--	--	--	--	--	--	--	--
JUN									
05...	47	--	--	--	--	--	--	--	--
JUL									
09...	17	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
15...	1200	6.0	3.5	59	.96	94
JUL						
09...	1200	17	20.0	23	1.1	96

07207500 PONIL CREEK NEAR CIMARRON, NM

LOCATION.--Lat 36°34'25", long 104°56'46", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 1.6 mi downstream from confluence of North and South Ponil Creeks, and 4.7 mi northwest of Cimarron.

DRAINAGE AREA.--171 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1915 to June 1919, August 1919 to July 1925, September 1925, September 1927 to July 1929, May 1950 to current year. Prior to May 1950 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1281: Drainage area. WSP 1731: 1920.

GAGE.--Water-stage recorder. Altitude of gage is 6,630 ft, from topographic map. Prior to May 8, 1922, at site 0.1 mi downstream at different datum. May 8, 1922 to Aug. 8, 1929, at site 0.4 mi upstream at different datum.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Diversions for irrigation of about 250 acres above station. Diversions 1,000 ft below station for irrigation of about 300 acres.

AVERAGE DISCHARGE.--45 years (water years 1916-25, 1928, 1951-84), 11.2 ft^3/s, 8,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,630 ft^3/s June 17, 1965, gage height, 11.13 ft, from rating curve extended above 230 ft^3/s on basis of slope-area measurements at gage heights 3.56 ft, 5.80 ft, 7.15 ft, and 11.13 ft; no flow many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for flood of Aug. 8, 1929, which destroyed gage, was estimated as 5,200 ft^3/s by State Engineer.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 1	2000	*2060	7.22	Aug. 6	2045	317	3.35

Minimum discharge, 0.49 ft^3/s Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	2.1	1.5	4.0	2.7	1.8	5.5	16	13	11	130	2.4
2	1.3	2.1	1.9	3.9	2.6	1.4	4.5	17	14	6.8	39	2.3
3	1.3	2.1	1.8	3.8	2.5	1.6	4.7	19	14	4.7	19	3.0
4	1.2	2.1	1.7	3.6	2.3	1.3	4.6	23	12	4.0	16	2.6
5	1.2	2.1	1.5	3.6	2.6	.98	5.1	28	11	3.3	9.2	2.1
6	1.2	2.1	1.4	3.5	2.7	1.4	6.5	30	11	5.5	32	1.9
7	1.2	2.1	2.3	3.5	2.2	2.5	8.8	31	9.7	4.4	24	1.3
8	1.3	2.1	2.4	3.5	1.9	2.3	9.0	29	9.1	3.2	22	1.0
9	1.5	2.1	2.4	3.5	1.9	2.2	10	29	8.0	2.6	21	.95
10	1.5	2.1	2.3	3.6	1.8	2.0	11	32	7.1	5.0	15	.78
11	1.5	2.1	2.1	3.6	1.5	2.0	12	38	6.4	6.1	11	.68
12	1.7	2.2	1.9	3.5	1.6	2.0	11	41	5.5	5.2	8.4	.60
13	1.6	2.2	1.6	3.3	2.3	2.0	12	44	6.2	3.3	18	.58
14	1.6	2.1	1.4	3.2	2.2	2.0	12	43	6.6	2.8	15	.96
15	1.8	2.0	2.0	3.1	1.4	2.3	13	43	5.9	4.1	9.8	1.5
16	1.9	2.0	1.7	3.0	1.2	2.5	14	60	4.8	6.3	7.7	1.4
17	1.9	2.0	1.8	3.0	1.5	2.7	17	62	4.1	11	6.1	1.7
18	1.8	2.0	1.8	2.9	1.7	2.9	21	56	4.0	7.5	5.3	1.2
19	1.8	2.0	1.8	2.8	1.4	2.6	25	49	6.6	6.3	7.0	1.1
20	1.8	1.9	1.9	2.7	1.4	2.8	27	42	5.5	4.6	6.1	.91
21	1.9	1.9	1.9	2.7	2.0	3.0	23	37	4.1	3.2	4.6	.90
22	1.8	1.9	2.0	2.6	2.7	3.6	20	35	3.3	2.3	4.3	.89
23	1.8	1.6	2.0	2.5	2.0	3.6	17	33	3.0	1.9	12	.70
24	1.8	1.5	2.0	2.5	1.4	3.7	18	30	5.8	1.6	7.3	.59
25	1.9	1.5	2.3	2.8	1.6	4.6	21	28	5.7	1.7	7.6	.56
26	1.9	1.5	4.5	3.2	1.6	4.2	22	26	6.0	1.4	5.3	.84
27	1.9	1.5	3.0	3.2	1.3	4.9	20	23	6.0	1.2	4.6	1.1
28	1.9	1.5	2.7	3.3	1.3	3.7	19	20	5.6	3.2	3.9	1.3
29	1.9	1.5	2.5	3.2	2.0	4.2	18	19	4.4	3.0	3.5	1.8
30	2.0	1.5	2.8	3.0	---	4.8	16	17	4.2	5.0	3.3	1.8
31	2.0	---	3.5	2.9	---	3.9	---	15	---	6.3	2.9	---
TOTAL	51.3	57.4	66.4	99.5	55.3	85.48	427.7	1015	212.6	138.5	480.9	39.44
MEAN	1.65	1.91	2.14	3.21	1.91	2.76	14.3	32.7	7.09	4.47	15.5	1.31
MAX	2.0	2.2	4.5	4.0	2.7	4.9	27	62	14	11	130	3.0
MIN	1.2	1.5	1.4	2.5	1.2	.98	4.5	15	3.0	1.2	2.9	.56
AC-FT	102	114	132	197	110	170	848	2010	422	275	954	78

CAL YR 1983 TOTAL 6771.38 MEAN 18.6 MAX 126 MIN .98 AC-FT 13430
WTR YR 1984 TOTAL 2729.52 MEAN 7.46 MAX 130 MIN .56 AC-FT 5410

07207500 PONIL CREEK NEAR CIMARRON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV											
15...	1400	2.1	259	272	8.0	8.1	9.0	3.5	--	110	0
JAN											
24...	1500	2.5	260	--	7.3	--	7.5	.0	11.3	--	--
MAR											
06...	1000	1.6	250	284	8.4	8.1	2.5	.5	12.9	110	2
JUN											
06...	1200	12	200	204	8.4	8.4	27.0	14.0	7.9	87	6
JUL											
10...	1030	3.8	230	250	6.9	8.3	24.0	21.0	6.9	100	6

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV										
15...	31	8.3	13	.6	1.2	25	2.0	.30	10	160
JAN										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	32	8.5	14	.6	.80	29	3.6	.30	8.6	160
JUN										
06...	25	6.0	8.6	.4	1.2	18	2.4	.30	9.8	120
JUL										
10...	30	7.2	12	.5	1.6	22	3.0	.30	8.8	140

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV			
15...	1400	10	30
MAR			
06...	1000	<10	30
JUN			
06...	1200	10	48
JUL			
10...	1030	<10	44

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN						
24...	1500	2.5	.0	4	.03	--
MAR						
06...	1000	1.6	.5	2	.00	--
JUN						
06...	1200	12	14.0	16	.52	84
JUL						
10...	1030	3.8	21.0	40	.41	94
AUG						
21...	0950	4.6	19.0	24	.30	89

07208500 RAYADO CREEK AT SAUBLE RANCH, NEAR CIMARRON, NM

LOCATION.--Lat 36°22'20", long 104°58'10", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank at Sauble Ranch (Carson-Maxwell Base Camp of Philmont Scout Ranch), 2.5 mi upstream from State Highway 21, 4.0 mi downstream from Bonito Creek, and 9.8 mi southwest of Cimarron.

DRAINAGE AREA.--65 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1909 to February 1910, June to August 1910, May 1911 to May 1913, July 1913 to February 1915, October 1915 to September 1918, March 1919 to September 1920, June 1923 to September 1924, March to May 1927, August 1927 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for April and May 1910, published in WSP 287, are unreliable and should not be used. Published as Rayado River "at," "near," or "above" Abreu's Ranch near Cimarron prior to October 1925 and as Rayado River at Sauble Ranch, near Cimarron, October 1925 to September 1952.

REVISED RECORDS.--WSP 1281: 1914, 1934-35(M), 1937(M), 1941(P), 1942(M), 1944(M), drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1976. Altitude of gage is 6,720 ft, from topographic map. See WSP 1921 for history of changes prior to Oct. 1, 1954. Oct. 1, 1954 to June 16, 1965, at site 270 ft downstream at datum 2.79 ft lower.

REMARKS.--Water-discharge records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--65 years (water years 1912, 1914, 1916-20, 1924, 1928-84), 13.7 ft^3/s, 9,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1909-12, and SINCE 1913).--Maximum discharge, 9,000 ft^3/s June 17, 1965, gage height, 11.5 ft, from floodmarks, from rating curve extended above 70 ft^3/s on basis of field estimate of peak flow; minimum, 0.03 ft^3/s Dec. 3, 1950, but may have been less during periods of ice effect.

EXTREMES OUTSIDE PERIOD OF RECORD.--The major flood of June 10, 1913, destroyed the gage (stage and discharge not determined). Another major flood probably occurred Sept. 29 or 30, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 112 ft^3/s May 16, gage height, 3.42 ft, no other peak above base of 100 ft^3/s; minimum discharge, 0.50 ft^3/s Nov. 23, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	4.1	4.3	3.8	3.5	3.2	7.3	23	20	7.9	8.5	5.8
2	3.4	3.9	4.2	3.8	3.4	3.1	7.0	26	19	9.0	9.0	5.5
3	3.3	3.9	4.1	3.7	3.2	2.9	7.5	30	19	8.4	9.9	5.6
4	3.3	4.0	4.2	3.7	3.3	2.6	7.5	40	17	9.1	9.2	5.6
5	3.2	4.1	3.9	3.7	3.3	3.6	8.0	46	16	8.2	18	5.2
6	3.0	4.1	3.9	3.7	3.3	4.3	9.8	48	15	8.0	14	4.5
7	3.0	4.1	3.9	3.7	3.4	4.0	12	47	14	7.1	15	4.1
8	3.1	4.1	3.8	3.6	3.6	4.1	11	44	13	6.5	14	4.0
9	3.9	4.3	3.8	3.6	3.5	4.1	13	44	12	6.3	13	3.8
10	3.6	4.1	3.8	3.6	3.5	4.3	13	47	11	8.0	12	3.7
11	3.3	4.7	3.8	3.6	3.5	4.4	14	52	11	10	10	3.7
12	3.5	4.4	3.8	3.5	3.5	4.2	13	56	11	10	9.6	3.5
13	3.5	4.6	3.5	3.5	3.5	4.5	15	61	11	7.7	12	3.5
14	3.5	4.6	3.6	3.5	3.4	5.1	17	61	14	6.8	11	3.6
15	3.5	3.8	3.7	3.4	3.3	5.7	18	63	13	7.9	9.8	4.0
16	3.5	4.4	3.8	3.3	3.3	6.1	20	96	12	8.3	8.9	6.7
17	3.6	4.6	3.8	3.3	3.3	5.9	24	79	11	9.3	8.1	4.7
18	3.7	4.7	4.0	3.2	3.4	6.3	29	70	11	8.1	7.5	4.3
19	3.7	4.5	4.1	3.2	3.4	5.8	33	63	14	7.8	16	3.9
20	3.7	3.6	4.2	3.1	3.5	6.2	34	57	12	6.8	10	3.8
21	3.8	2.5	4.2	3.0	3.5	7.0	29	52	11	6.0	8.9	3.7
22	3.9	1.7	4.2	2.8	3.5	8.0	25	48	9.7	5.5	9.1	3.6
23	3.9	1.1	4.2	2.7	3.4	5.9	23	45	9.0	5.3	13	3.4
24	3.9	2.2	4.1	2.9	3.4	7.9	24	42	9.0	5.1	11	3.3
25	3.9	5.5	4.1	3.1	3.5	7.8	28	38	8.9	5.1	9.1	3.3
26	3.8	5.1	4.0	3.5	3.4	6.7	30	35	8.7	5.0	8.6	3.5
27	3.7	5.0	4.0	4.0	3.4	7.0	27	31	8.8	4.8	8.0	3.7
28	4.0	4.6	3.6	3.6	3.3	7.4	26	28	9.2	8.7	8.3	3.7
29	4.1	4.5	3.7	3.4	3.2	6.9	26	26	8.2	6.5	7.4	3.9
30	4.1	4.4	3.8	3.4	---	7.4	23	23	8.0	6.5	6.7	3.9
31	4.1	---	3.9	3.3	---	6.9	---	21	---	6.7	6.1	---
TOTAL	111.9	121.2	122.0	106.2	98.7	169.3	574.1	1442	366.5	226.4	321.7	125.5
MEAN	3.61	4.04	3.94	3.43	3.40	5.46	19.1	46.5	12.2	7.30	10.4	4.18
MAX	4.1	5.5	4.3	4.0	3.6	8.0	34	96	20	10	18	6.7
MIN	3.0	1.1	3.5	2.7	3.2	2.6	7.0	21	8.0	4.8	6.1	3.3
AC-FT	222	240	242	211	196	336	1140	2860	727	449	638	249

CAL YR 1983 TOTAL 6248.9 MEAN 17.1 MAX 133 MIN 1.1 AC-FT 12390
WTR YR 1984 TOTAL 3785.5 MEAN 10.3 MAX 96 MIN 1.1 AC-FT 7510

07208500 RAYADO CREEK AT SAUBLE RANCH, NEAR CIMARRON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV											
15...	1000	2.8	132	152	7.8	7.9	4.0	1.0	--	64	0
JAN											
24...	1100	4.2	125	--	7.3	--	8.0	.0	11.3	--	--
MAR											
05...	1530	4.7	140	153	8.3	8.1	-1.0	2.5	12.4	64	0
JUN											
05...	1300	16	100	101	8.2	8.0	26.0	13.5	8.4	44	4
JUL											
09...	1400	6.2	140	132	8.2	8.2	22.0	20.0	6.7	55	0

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV										
15...	17	5.3	5.2	.3	1.2	5.6	.70	.30	20	99
JAN										
24...	--	--	--	--	--	--	--	--	--	--
MAR										
05...	17	5.3	5.6	.3	1.2	8.5	1.2	.30	18	99
JUN										
05...	12	3.3	4.0	.3	1.2	7.2	.90	.20	19	72
JUL										
09...	15	4.3	4.6	.3	1.6	5.7	.90	.20	21	88

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV			
15...	1000	10	28
MAR			
05...	1530	<10	29
JUN			
05...	1300	<10	92
JUL			
09...	1400	<10	29

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
15...	1000	2.8	1.0	60	.45	91
JAN						
24...	1100	4.2	.0	1	.01	--
MAR						
05...	1530	4.7	2.5	3	.04	--
JUN						
05...	1300	16	13.5	18	.78	93
JUL						
09...	1400	6.2	20.0	10	.17	86
AUG						
20...	1350	9.5	20.0	20	.51	--

BEST COPY AVAILABLE

07211000 CIMARRON RIVER AT SPRINGER, NM

LOCATION.--Lat 36°21'37", long 104°35'53", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank at Springer, 400 ft downstream from bridge on State Highway 199, 0.3 mi upstream from Salado Creek, and at mile 8.2.

DRAINAGE AREA.--1,032 mi^2.

PERIOD OF RECORD.--August 1907 to December 1909, January 1921 to February 1922, October 1924 to January 1926, September 1926 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Cimarron Creek at Springer, October 1952 to September 1965.

REVISED RECORDS.--WSP 827: 1934-36(M). WSP 1281: 1942, 1945-46(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1954. Altitude of gage is 5,770 ft, from topographic map. See WSP 1311 or 1731 for history of changes prior to July 17, 1942.

REMARKS.--Records good. Flow partly regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 23,000 acres above station and a few hundred acres between station and mouth. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1921, 1925, 1927-84), 16.8 ft^3/s, 12,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 29,500 ft^3/s June 18, 1965, gage height, 19.96 ft, from floodmarks, from rating curve extended above 1,800 ft^3/s on basis of contracted-opening measurement of peak flow; no flow at times in 1954, 1956-57, 1978, 1983, 1984.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 22 ft Sept. 29, 1904 (backwater from debris on railroad bridge). Another major flood occurred June 11, 1913. Maximum discharge of these floods probably extended 10,000 ft^3/s, but probably were less than the 1965 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft^3/s Aug. 19, gage height, 3.86 ft, no peak above base of 280 ft^3/s; no flow part of several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	2.2	2.4	2.7	2.4	3.2	4.1	3.0	2.5	1.4	5.6	2.1
2	.24	2.3	2.6	3.0	2.4	3.1	4.2	3.8	4.3	1.3	3.7	1.0
3	.16	2.5	2.6	2.9	2.4	3.0	3.7	3.3	4.4	.95	3.8	.68
4	.31	2.7	3.0	2.8	2.4	3.7	3.3	5.1	3.8	.76	3.3	1.6
5	.39	2.5	2.6	2.8	2.4	4.2	3.0	5.6	3.5	.91	3.1	2.8
6	.38	1.3	2.6	3.2	2.5	4.0	2.8	6.2	2.2	.79	3.0	1.7
7	.41	1.1	2.6	2.7	2.4	4.3	2.8	6.5	1.7	.51	5.6	.67
8	.42	1.1	2.6	2.5	2.5	3.8	2.8	9.1	.92	.36	5.4	.37
9	1.7	1.1	2.6	2.5	2.5	3.8	2.6	11	.61	.53	4.7	.35
10	2.7	.96	2.6	2.4	2.6	3.6	2.6	11	.74	1.9	5.1	.27
11	2.9	1.4	2.5	2.4	2.6	3.3	2.5	4.9	.82	1.4	5.0	.18
12	3.4	1.5	2.4	2.3	2.6	3.3	2.0	4.0	.53	1.1	3.8	.29
13	2.5	1.5	2.4	2.0	2.7	3.1	2.0	4.7	1.5	.94	7.3	.28
14	2.0	1.3	2.3	1.5	2.7	2.9	2.1	4.5	2.9	.90	5.7	.33
15	1.7	1.2	2.4	1.4	2.8	2.8	2.1	4.8	4.1	.68	2.9	.50
16	1.7	1.4	2.5	1.2	2.8	2.6	2.3	6.6	3.9	.78	1.7	1.2
17	2.7	1.6	2.4	1.5	2.9	2.5	2.4	13	3.5	1.8	.70	1.0
18	3.0	1.9	2.3	1.2	2.9	2.5	2.4	13	3.6	3.8	.47	.57
19	3.1	2.2	2.1	1.0	2.9	2.7	2.1	10	4.8	4.0	34	.49
20	1.5	1.9	2.1	.64	2.9	2.8	1.8	9.3	3.3	3.6	26	.42
21	1.3	1.6	2.1	1.2	2.9	2.6	1.8	8.8	3.3	2.7	10	.35
22	2.2	1.9	2.1	1.9	2.9	2.9	2.4	7.9	2.3	3.2	6.1	.35
23	2.8	1.9	2.0	1.5	2.8	3.7	5.2	8.1	2.5	2.3	7.4	.33
24	3.1	1.9	2.0	2.1	2.8	4.0	3.8	7.6	2.9	1.7	7.0	.26
25	3.6	1.9	2.1	2.0	3.0	4.0	2.9	7.1	2.1	.75	4.7	.13
26	3.0	.96	2.1	3.2	3.0	3.8	2.5	7.2	4.7	.27	2.7	.22
27	2.3	1.5	2.1	3.1	2.9	4.9	2.6	6.0	5.2	1.2	2.3	.34
28	1.9	1.9	2.3	2.9	3.1	4.8	2.3	4.0	3.1	3.9	2.8	.44
29	1.9	2.1	2.5	2.7	3.3	4.3	3.5	3.6	1.5	.86	4.6	.53
30	1.8	2.1	2.5	2.5	---	4.2	2.8	4.3	1.4	.54	5.9	.50
31	2.3	---	2.5	2.4	---	4.5	---	3.5	---	1.2	4.6	---
TOTAL	57.72	51.42	73.9	68.14	79.0	108.9	83.4	207.5	82.62	47.03	188.97	20.25
MEAN	1.86	1.71	2.38	2.20	2.72	3.51	2.78	6.69	2.75	1.52	6.10	.68
MAX	3.6	2.7	3.0	3.2	3.3	4.9	5.2	13	5.2	4.0	34	2.8
MIN	.16	.96	2.0	.64	2.4	2.5	1.8	3.0	.53	.27	.47	.13
AC-FT	114	102	147	135	157	216	165	412	164	93	375	40

CAL YR 1983 TOTAL 9997.01 MEAN 27.4 MAX 362 MIN .06 AC-FT 19830
WTR YR 1984 TOTAL 1068.85 MEAN 2.92 MAX 34 MIN .13 AC-FT 2120

07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM

LOCATION.--Lat 36°17'49", long 104°29'36", in NW¼SE¼ sec.21, T.24 N., R.23 E., Colfax County, Hydrologic Unit 11080003, on left bank at head of gorge, 2.0 mi south of Taylor Springs, 2.3 mi downstream from Cimarron River, 2.4 mi upstream from Chico Creek, 7.1 mi southeast of Springer, and at mile 847.9.

DRAINAGE AREA.--2,850 mi^2.

PERIOD OF RECORD.--January 1940 to September 1958, annual maximum, water years 1959-63, June 1964 to current year. Water-year estimate for 1940, published in WSP 1311.

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1941-42(P), 1945-47(M), 1948-50(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft, from topographic map. Prior to June 10, 1964, water-stage recorder at site 1.7 mi downstream at different datum; operated as crest-stage gage at that site and datum during water years 1959-64.

REMARKS.--Records poor. Diversions for irrigation of about 30,000 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years (water years 1940-58, 1965-84), 78.9 ft^3/s, 57,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 162,000 ft^3/s June 18, 1965, gage height, 47.4 ft, from floodmarks, from rating curve extended above 7,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood prior to 1965 occurred Sept. 29, 1904, discharge published as 91,100 ft^3/s in WSP 842, 847.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, gage height, not recorded; minimum discharge, 0.90 ft^3/s Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	3.3	15	20	32	14	14	113	77	6.0	46	140
2	1.5	3.5	16	21	34	11	14	103	71	6.8	250	80
3	1.1	4.8	18	22	35	10	12	100	62	8.0	75	45
4	1.0	5.0	26	23	33	11	11	110	250	7.6	200	26
5	1.0	4.9	18	24	34	14	11	130	150	7.3	110	12
6	1.0	4.7	20	25	36	16	9.3	142	80	6.8	58	7.8
7	.99	4.6	24	26	37	16	8.9	156	50	6.4	40	6.0
8	1.0	5.0	25	27	34	13	10	200	40	5.8	29	4.7
9	1.3	6.8	24	29	31	14	41	179	34	5.5	20	3.9
10	2.9	8.6	20	30	23	13	135	160	28	5.0	13	3.6
11	3.9	9.4	17	31	23	11	148	122	23	4.7	16	5.1
12	5.8	9.9	17	26	29	11	196	106	100	4.5	26	4.9
13	4.5	10	14	22	23	10	188	88	1.4	4.3	400	4.1
14	4.1	9.5	11	19	18	9.6	156	83	14	4.0	180	3.4
15	3.7	7.5	10	24	21	9.0	145	105	175	20	102	3.0
16	3.1	9.3	13	21	20	8.7	113	170	115	200	96	7.4
17	3.4	9.8	14	18	20	8.5	98	300	91	60	35	265
18	3.9	11	12	15	14	8.9	105	395	70	14	30	33
19	4.1	12	12	14	18	9.6	101	300	51	2.5	70	18
20	4.0	12	11	12	20	12	111	260	33	2.3	245	13
21	3.6	14	12	15	22	9.8	119	235	27	2.2	190	10
22	3.1	13	13	18	21	10	132	210	21	2.1	1500	10
23	3.4	12	13	20	21	14	111	195	17	1.9	600	8.0
24	3.3	10	14	23	17	15	117	182	14	1.9	350	6.3
25	3.2	9.8	15	25	15	13	121	162	11	1.8	215	5.1
26	3.3	9.2	16	26	11	13	153	150	7.2	1.5	135	5.1
27	3.8	8.5	17	26	14	15	216	133	6.0	1.2	78	5.9
28	3.7	9.2	18	27	15	15	188	120	5.6	13	52	7.2
29	3.3	12	18	28	16	14	160	110	5.2	9.3	110	11
30	3.2	14	19	29	---	13	130	99	4.5	5.6	140	12
31	3.1	---	20	30	---	15	---	87	---	4.0	250	---
TOTAL	91.19	263.3	512	716	687	377.1	3074.2	5005	1633.9	426.0	5661	766.5
MEAN	2.94	8.78	16.5	23.1	23.7	12.2	102	161	54.5	13.7	183	25.6
MAX	5.8	14	26	31	37	16	216	395	250	200	1500	265
MIN	.99	3.3	10	12	11	8.5	8.9	83	1.4	1.2	13	3.0
AC-FT	181	522	1020	1420	1360	748	6100	9930	3240	845	11230	1520

CAL YR 1983 TOTAL 31327.17 MEAN 85.8 MAX 899 MIN .31 AC-FT 62140
WTR YR 1984 TOTAL 19213.19 MEAN 52.5 MAX 1500 MIN .99 AC-FT 38110

NOTE: No gage height record May 1 - Sept. 5.

07215500 MORA RIVER AT LA CUEVA, NM

LOCATION.--Lat 35°56'27", long 105°14'59", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 45 ft upstream from bridge on State Highway 3 at La Cueva, 0.3 mi downstream from La Cueva damsite, and at mile 86.8.

DRAINAGE AREA.--173 mi^2.

PERIOD OF RECORD.--August 1903 to April 1905 (gage heights and discharge measurements only), May to December 1905, May 1906 to July 1911, April 1931 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for February to April 1905, published in WSP 173, are unreliable and should not be used.

REVISED RECORDS.--WSP 857: 1937. WSP 1281: 1931(M), 1932. WSP 1511: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 7,000 ft, from topographic map. Prior to Apr. 15, 1931, nonrecording gage, and Apr. 15, 1931 to Apr. 18, 1962, water-stage recorder near present site at different datums. Apr. 19, 1962 to Mar. 13, 1974, water-stage recorder at site 700 ft downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 7,000 acres, part of which is below station. See tabulation below for monthly and yearly diversion of La Cueva Canal, which bypasses gage on left bank. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--57 years (water years 1907-10, 1932-84), 27.2 ft^3/s, 19,710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 1,530 ft^3/s Sept. 23, 1941, gage height, 7.58 ft, site and datum then in use, from rating curve extended abot 400 ft^3/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, may have exceeded 20,000 ft^3/s; another major flood occurred June 11, 1913, but is believed less than that of 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 255 ft^3/s at 1700 hours Aug. 29, gage height, 3.52 ft, from rating curve extended above 69 ft^3/s, no peak above base of 300 ft^3/s; minimum, 0.83 ft^3/s Jan. 1, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	2.0	1.6	.83	2.9	4.6	25	20	79	76	14	39
2	13	1.9	1.6	.84	3.1	4.5	20	19	82	70	18	38
3	14	2.2	1.6	.84	3.5	4.3	17	20	80	56	25	40
4	13	2.1	1.5	.84	3.9	4.8	18	19	78	56	17	35
5	13	2.0	1.5	.93	4.2	7.0	19	20	74	60	18	33
6	11	2.0	1.5	.93	4.5	6.3	21	23	68	52	22	31
7	9.1	1.8	1.4	1.2	4.7	7.3	22	26	51	45	25	28
8	12	1.8	1.2	1.2	4.8	5.1	25	28	43	35	23	26
9	15	1.8	1.2	.93	5.4	4.8	26	29	39	32	25	23
10	13	1.8	1.1	.84	6.7	4.8	27	42	32	40	22	24
11	13	1.9	1.0	.89	7.6	4.8	31	58	28	37	21	22
12	12	1.9	1.1	.90	8.0	4.6	29	74	27	37	20	22
13	11	1.9	1.0	.95	9.4	4.1	32	91	33	33	22	21
14	12	1.9	1.8	1.0	12	4.8	30	98	45	34	20	22
15	12	1.8	1.0	1.0	15	11	33	122	44	33	37	26
16	11	1.6	1.0	1.1	14	15	35	190	50	38	47	25
17	11	1.6	1.0	1.1	13	15	39	197	48	36	36	22
18	11	1.8	1.0	1.2	14	14	44	175	65	34	34	17
19	12	1.7	.97	1.2	17	16	46	159	103	27	33	18
20	15	1.7	.95	1.3	14	16	49	139	99	23	42	17
21	16	1.7	.94	1.4	14	14	47	139	83	23	38	18
22	8.1	1.7	.91	1.4	8.8	16	41	140	74	19	38	16
23	1.9	1.7	.90	1.5	5.4	18	37	147	69	18	91	15
24	2.0	3.1	.88	1.6	5.4	19	33	165	70	19	58	15
25	2.0	2.3	.88	1.6	5.4	19	37	153	71	20	53	12
26	2.5	2.1	.87	1.7	5.1	17	44	143	73	16	49	9.0
27	2.5	2.0	.87	1.8	4.9	19	38	128	75	13	45	9.0
28	2.5	1.9	.86	2.0	4.8	20	36	115	74	14	46	10
29	2.3	1.8	.86	2.2	4.7	21	26	99	67	15	51	11
30	2.3	1.7	.84	2.4	---	22	24	86	68	15	46	10
31	2.2	---	.84	2.6	---	24	---	79	---	16	43	---
TOTAL	291.4	57.2	34.67	40.22	226.2	367.8	951	2943	1892	1042	1079	654.0
MEAN	9.40	1.91	1.12	1.30	7.80	11.9	31.7	94.9	63.1	33.6	34.8	21.8
MAX	16	3.1	1.8	2.6	17	24	49	197	103	76	91	40
MIN	1.9	1.6	.84	.83	2.9	4.1	17	19	27	13	14	9.0
AC-FT	578	113	69	80	449	730	1890	5840	3750	2070	2140	1300
(†)	302	880	827	717	137	199	0	527	855	364	354	116

CAL YR 1983 TOTAL 14072.37 MEAN 38.6 MAX 220 MIN .84 AC-FT 27910 (†) 5495
WTR YR 1984 TOTAL 9578.49 MEAN 26.2 MAX 197 MIN .83 AC-FT 19000 (†) 5278

(†) DIVERSION, IN ACRE-FEET, BY LA CUEVA CANAL

07215500 MORA RIVER AT LA CUEVA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV											
10...	1400	1.9	480	478	8.1	7.9	15.0	7.5	--	260	52
MAR											
22...	1300	15	442	471	8.1	8.1	3.0	6.5	9.3	220	54
MAY											
02...	1245	19	480	487	7.2	8.3	20.0	13.0	12.9	240	38
JUL											
26...	1130	19	440	486	8.3	8.4	24.0	15.0	8.9	240	68

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV										
10...	79	15	13	.4	1.4	63	3.5	.50	9.6	310
MAR										
22...	64	14	11	.3	1.1	67	3.9	.40	6.5	270
MAY										
02...	70	15	11	.3	1.0	72	5.8	.40	7.8	300
JUL										
26...	73	15	11	.3	1.1	65	3.3	.40	8.1	280

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV			
10...	1400	30	91
MAR			
22...	1300	30	23
MAY			
02...	1245	40	8
JUL			
26...	1130	40	15

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
10...	1400	1.9	7.5	52	.27	90
MAR						
22...	1300	15	6.5	24	.97	82
MAY						
02...	1245	19	13.0	59	3.0	33
JUL						
26...	1130	19	15.0	24	1.2	62
SEP						
06...	1330	33	15.5	42	3.7	69

07216500 MORA RIVER NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°53'27", long 105°09'47", Mora County, Hydrologic Unit 11080004, in Mora Grant, on right bank 0.7 mi upstream from bridge on State Highway 160, 1.2 mi east of Golondrinas, 1.9 mi upstream from Coyote Creek, 4.7 mi downstream from Rito Cebolla, and at mile 75.8.

DRAINAGE AREA.--267 mi^2.

PERIOD OF RECORD.--March 1915 to May 1921, October 1921 to March 1922, May, August, September 1922, July 1923 to July 1924, December 1924 to current year. Monthly discharge only 1915-30, published in WSP 1311.

REVISED RECORDS.--WSP 1281: 1951(M). WSP 1311: 1935(M), 1937-38(M), 1940-42(M), 1949(M). WSP 1511: Drainage area. WSP 1731: 1958(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,750 ft, from topographic map. Mar. 10, 1915 to June 4, 1921, water-stage recorder at site 2.8 mi upstream at different datum. July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi downstream at datum about 14 ft lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi downstream at datum about 15 ft lower.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 12,000 acres above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--67 years (water years 1916-20, 1922, 1924-84), 33.1 ft^3/s, 24,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft^3/s Aug. 22, 1952, gage height, 14.4 ft, site and datum then in use, from rating curve extended above 660 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 580 ft^3/s at 2045 hours Aug. 15, gage height, 3.22 ft, no other peak above base of 400 ft^3/s; minimum, 0.97 ft^3/s Dec. 6, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	3.4	3.5	5.0	17	7.4	31	16	81	90	20	40
2	9.3	3.3	3.5	5.1	20	7.4	25	14	85	104	17	37
3	9.3	3.3	3.6	5.1	19	7.0	22	9.4	95	73	28	38
4	8.6	3.3	3.7	5.2	24	7.1	20	9.5	94	70	18	38
5	7.7	4.3	3.5	4.9	22	8.1	21	9.4	86	84	21	30
6	7.4	4.3	3.7	5.1	21	8.0	23	11	84	79	40	27
7	6.1	4.5	4.5	5.7	20	8.4	24	13	52	61	51	25
8	7.5	4.5	4.5	5.5	19	8.3	28	15	39	48	27	20
9	13	4.6	3.9	6.3	17	7.8	27	15	37	39	27	19
10	12	4.6	3.4	5.0	16	8.4	28	23	33	50	23	18
11	10	4.5	3.9	5.1	18	7.7	27	37	29	51	22	18
12	12	4.4	3.0	5.0	18	7.1	27	64	28	48	21	15
13	9.2	4.0	3.3	5.0	17	6.7	27	93	25	41	22	11
14	11	3.5	3.4	5.0	17	6.7	27	106	53	41	20	27
15	12	3.8	3.5	5.0	17	8.3	28	133	52	37	85	18
16	11	4.1	3.6	5.3	16	17	29	200	61	43	77	20
17	12	3.7	3.6	5.6	16	16	31	216	66	48	37	19
18	12	3.4	3.7	5.8	17	14	35	211	72	42	35	16
19	12	3.3	3.8	6.2	16	15	39	192	153	30	36	15
20	15	3.2	3.8	6.5	15	14	41	166	147	26	46	15
21	19	3.3	3.9	6.7	13	15	42	154	116	24	40	15
22	17	3.3	4.0	6.8	12	16	38	151	101	20	40	14
23	5.4	3.3	4.2	6.9	9.8	20	34	158	87	16	110	11
24	4.0	25	4.3	6.9	9.3	20	31	181	88	16	75	11
25	3.8	25	4.4	7.0	7.8	23	29	170	91	16	63	9.9
26	3.7	3.0	4.6	7.1	7.8	19	37	163	85	14	55	6.2
27	3.6	3.1	4.6	7.2	7.7	20	32	148	91	11	47	6.3
28	3.6	3.2	4.7	7.1	7.6	21	28	133	96	11	45	6.5
29	3.4	3.3	4.8	9.8	7.6	22	18	114	80	10	51	9.8
30	3.5	3.4	4.8	8.7	---	25	17	98	79	13	49	11
31	3.5	---	4.9	8.4	---	24	---	88	---	26	42	---
TOTAL	278.6	153.9	122.6	190.0	444.6	415.4	866	3111.3	2286	1282	1290	566.7
MEAN	8.99	5.13	3.95	6.13	15.3	13.4	28.9	100	76.2	41.4	41.6	18.9
MAX	19	25	4.9	9.8	24	25	42	216	153	104	110	40
MIN	3.4	3.0	3.0	4.9	7.6	6.7	17	9.4	25	10	17	6.2
AC-FT	553	305	243	377	882	824	1720	6170	4530	2540	2560	1120

CAL YR 1983 TOTAL 15155.1 MEAN 41.5 MAX 251 MIN 3.0 AC-FT 30060
WTR YR 1984 TOTAL 11007.1 MEAN 30.1 MAX 216 MIN 3.0 AC-FT 21830

07218000 COYOTE CREEK NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°55'00", long 105°09'49", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 0.5 mi downstream from Coyote Creek damsite, 2.3 mi northeast of Golondrinas, and at mile 2.7.

DRAINAGE AREA.--215 mi^2.

PERIOD OF RECORD.--April 1928 to September 1930 (monthly discharge only, published in WSP 1311), October 1930 to current year.

REVISED RECORDS.--WSP 1281: 1939-40(M), 1941-42, 1945-47. WSP 1511: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,785 ft, from topographic map. Prior to Apr. 26, 1938, at site 0.4 mi downstream at different datum (nonrecording gage prior to Apr. 20, 1929). Apr. 26, 1938 to Sept. 25, 1946, at site 139 ft downstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Diversions (including off-channel storage) for irrigation of about 4,000 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--56 years, 11.3 ft^3/s, 8,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft^3/s Aug. 17, 1961, gage height, 9.60 ft, from rating curve extended above 250 ft^3/s on basis of slope-area measurements at gage heights 5.54 ft, 7.74 ft, and 9.60 ft; maximum gage height, 10.1 ft Aug. 30, 1936 (site and datum then in use); no flow Aug. 4, 1945, Apr. 10, May 9, 10, 1956, Feb. 20, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 17	0500	263	3.56	Aug. 6	2200	375	3.92
July 1	1715	*810	5.14	Aug. 16	0030	457	4.15
July 18	2030	472	4.20	Sept. 14	1400	270	3.54
Aug. 2	2015	208	3.28				

Minimum discharge, 1.5 ft^3/s Oct. 6-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	1.9	5.9	3.2	6.8	11	15	6.9	7.6	70	14	5.3
2	3.7	2.0	8.0	3.2	6.7	11	14	6.5	9.0	3.6	27	4.9
3	4.2	2.0	7.0	3.2	6.9	11	13	6.9	9.7	3.2	16	4.9
4	4.2	2.0	7.1	3.2	7.8	11	8.4	6.5	8.1	2.3	10	6.7
5	2.6	2.0	7.3	3.2	8.1	10	7.6	6.5	6.9	6.5	9.1	5.8
6	1.9	1.9	7.4	3.2	8.3	11	12	6.9	6.4	8.1	42	4.7
7	1.5	2.0	7.7	3.2	8.6	11	14	8.1	5.6	6.2	41	4.4
8	1.5	2.1	8.0	3.2	8.9	12	15	8.3	5.1	6.2	18	4.3
9	1.7	2.2	8.6	3.3	10	12	11	6.1	4.5	6.2	16	4.2
10	1.7	2.4	10	3.3	11	11	10	9.8	4.0	6.0	16	3.9
11	1.9	2.4	9.0	3.3	12	11	8.8	9.2	3.5	6.7	15	3.8
12	1.7	2.2	9.0	3.3	13	9.9	8.4	10	3.2	8.4	13	3.8
13	1.7	2.2	8.9	3.5	11	8.4	7.8	17	2.8	6.7	11	3.7
14	1.8	2.3	8.8	3.8	12	8.9	7.2	28	2.5	22	14	34
15	2.1	2.0	8.7	4.1	12	10	6.5	36	4.1	6.9	20	8.9
16	2.1	2.1	8.3	4.0	11	12	5.8	123	2.3	20	79	6.6
17	2.0	2.0	7.9	3.9	10	13	4.9	221	3.7	22	15	6.3
18	2.0	2.1	7.7	3.6	9.6	15	4.3	168	10	66	11	6.4
19	2.0	2.1	7.4	3.4	10	14	4.5	135	4.1	36	9.8	5.7
20	2.0	2.1	7.1	3.5	10	15	4.6	105	4.0	11	11	5.4
21	2.3	2.2	6.7	3.8	13	15	5.0	83	3.9	6.8	10	5.3
22	2.0	2.2	6.4	4.2	11	16	4.7	66	3.8	5.5	15	5.6
23	1.8	2.3	6.1	4.4	11	18	4.2	46	3.6	4.3	33	5.4
24	1.8	2.5	5.6	4.7	9.5	16	5.2	38	3.5	3.6	23	5.1
25	1.8	2.6	5.1	5.3	11	16	5.2	30	3.5	3.5	15	4.7
26	2.0	2.5	4.8	5.6	12	15	5.4	22	3.4	3.3	13	4.6
27	8.4	2.8	4.6	6.0	15	12	5.8	21	3.3	3.3	9.6	4.8
28	2.1	3.2	4.2	5.9	11	14	5.8	18	3.2	3.2	9.2	4.7
29	2.0	3.6	3.8	5.8	11	13	7.2	15	3.1	3.2	10	5.3
30	2.1	4.4	3.6	6.7	---	13	6.5	11	3.1	3.0	8.1	6.3
31	2.1	---	3.4	7.0	---	12	---	8.5	---	4.5	7.2	---
TOTAL	74.2	70.3	214.1	128.0	298.2	388.2	237.8	1283.2	141.5	368.2	561.0	185.5
MEAN	2.39	2.34	6.91	4.13	10.3	12.5	7.93	41.4	4.72	11.9	18.1	6.18
MAX	8.4	4.4	10	7.0	15	18	15	221	10	70	79	34
MIN	1.5	1.9	3.4	3.2	6.7	8.4	4.2	6.1	2.3	2.3	7.2	3.7
AC-FT	147	139	425	254	591	770	472	2550	281	730	1110	368

CAL YR 1983 TOTAL 4727.1 MEAN 13.0 MAX 65 MIN 1.5 AC-FT 9380
WTR YR 1984 TOTAL 3950.2 MEAN 10.8 MAX 221 MIN 1.5 AC-FT 7840

07221000 MORA RIVER NEAR SHOEMAKER, NM

LOCATION.--Lat 35°48'01", long 104°46'58", Mora County, Hydroligic Unit 11080004, in Mora Grant, on left bank 5.5 mi east of Shoemaker, 12.3 mi upstream from Pedroso Creek, and at mile 39.4.

DRAINAGE AREA.--1,104 mi^2, of which 71 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1914 to July 1915, October 1915 to August 1918, May 1919 to July 1924, September to November 1924, March to July 1925, June 1927 to current year. Prior to October 1930 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1281: 1931(M), 1933-1934(M), 1937(M), 1938(P), 1939-40(M), 1941-42(P). WSP 1731: 1921, 1928, 1951(M). WRD NM-75-1: 1974. WRD NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 6,145 ft, from topographic map. Prior to Oct. 10, 1934, at site 2,000 ft upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 26,000 acres above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--66 years (water years 1915-18, 1920-24, 1928-84), 55.0 ft^3/s, 39,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s June 3, 1948, gage height, 12.79 ft, from rating curve extended above 2,800 ft^3/s on basis of slope-area measurements at gage heights 10.09 ft and 12.79 ft; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft^3/s June 15, gage height, 5.05 ft, no other peak above base of 800 ft^3/s; minimum discharge, 1.4 ft^3/s Feb. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	5.7	6.6	23	27	6.9	7.5	11	58	64	6.9	32
2	5.1	5.1	8.6	24	31	6.3	8.8	11	50	103	31	29
3	4.9	4.9	8.2	24	31	5.4	13	9.9	107	63	90	27
4	4.9	4.9	7.4	24	33	5.7	12	10	236	49	44	26
5	5.1	5.0	7.3	27	36	6.8	11	11	102	49	29	25
6	5.4	5.1	8.9	28	37	6.9	11	9.6	62	53	28	21
7	5.2	4.9	19	29	39	6.1	11	8.3	57	49	168	18
8	4.8	5.1	22	28	38	6.5	11	8.7	43	42	83	19
9	4.7	4.9	25	27	35	6.0	11	8.6	32	31	57	11
10	4.7	4.9	23	26	13	5.5	12	8.4	24	22	50	8.4
11	4.9	5.0	24	26	12	5.2	12	8.4	21	20	47	7.8
12	5.7	5.0	25	25	16	6.3	11	8.4	16	34	43	8.0
13	5.5	4.9	25	25	16	5.8	12	8.6	12	38	250	13
14	5.6	4.9	25	25	19	5.5	13	29	11	31	112	13
15	5.1	4.9	24	24	21	5.5	13	69	352	25	90	74
16	4.7	5.3	24	23	20	5.3	13	131	91	60	79	35
17	4.7	5.3	24	26	14	4.7	14	306	78	46	75	32
18	4.7	4.9	24	23	14	5.5	14	341	68	54	65	46
19	4.7	5.5	24	25	13	7.2	10	292	125	68	58	21
20	5.6	5.6	24	25	14	6.9	11	252	139	50	55	17
21	5.9	5.6	25	25	12	7.1	13	203	117	36	56	13
22	5.2	5.6	23	25	13	5.9	12	170	99	27	58	14
23	5.2	5.6	23	25	12	6.1	15	165	89	17	150	14
24	5.2	5.3	21	26	11	6.6	13	170	83	13	120	13
25	5.4	6.0	21	26	9.4	6.8	11	181	82	11	90	12
26	5.6	5.3	22	27	9.5	6.3	11	161	80	10	76	11
27	5.7	6.3	22	28	8.6	7.6	11	145	82	9.3	70	10
28	6.1	5.8	22	29	8.6	7.7	11	123	82	8.3	65	9.6
29	5.8	6.5	22	29	8.1	7.4	11	103	76	8.9	50	9.9
30	5.9	6.3	23	28	---	7.5	11	93	67	6.1	44	9.3
31	5.9	---	23	27	---	9.2	---	71	---	7.9	38	---
TOTAL	163.1	160.1	626.0	802	571.2	198.2	350.3	3126.9	2541	1105.5	2277.9	599.0
MEAN	5.26	5.34	20.2	25.9	19.7	6.39	11.7	101	84.7	35.7	73.5	20.0
MAX	6.1	6.5	25	29	39	9.2	15	341	352	103	250	74
MIN	4.7	4.9	6.6	23	8.1	4.7	7.5	8.3	11	6.1	6.9	7.8
AC-FT	324	318	1240	1590	1130	393	695	6200	5040	2190	4520	1190

CAL YR 1983 TOTAL 20261.5 MEAN 55.5 MAX 366 MIN 4.7 AC-FT 40190
WTR YR 1984 TOTAL 12521.2 MEAN 34.2 MAX 352 MIN 4.7 AC-FT 24840

07221500 CANADIAN RIVER NEAR SANCHEZ, NM
(Surveillance network station)

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¼ sec.34, T.17 N., R.24 E., San Miguel County, Hydrologic Unit 11080003 on right bank 1,000 ft downstream from bridge on State Highway 65, 0.9 mi upstream from Lagartija Creek, 3.2 mi northeast of Sanchez, 10 mi downstream from Mora River, 25 mi southwest of Mosquero, and at mile 777.0.

DRAINAGE AREA.--6,015 mi^2, of which 303 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to December 1914, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1939, 1940(P), 1942, 1946. WSP 1731: 1956-57(M). WDR NM-82: 1965(M), 1979(M). The revised figures of discharge for September 1942, as published in WSP 1281, supersede those published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 4,495 ft, from topographic map. See WSP 2121 for history of changes prior to November 1966. Supplemental water-stage recorder at site 0.6 mi upstream used at various times since 1966.

REMARKS.--Water-discharge records fair. Diversions for irrigation of about 56,000 acres above station.

AVERAGE DISCHARGE.--51 years (water years 1913-14, 1936-84), 184 ft^3/s, 133,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft^3/s June 18, 1965, gage height, about 36.6 ft, from floodmarks, present site and datum, from rating curve extended above 91,000 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, or 30, 1904, probably exceeded 100,000 ft^3/s, but is believed to have been less than the peak of June 18, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 13	2330	5350	9.33	Sept. 14	1900	10800	12.35
Aug. 23	0315	*11800	12.79				

Minimum discharge, 1.5 ft^3/s Nov. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.5	11	34	44	20	22	140	100	77	30	88
2	3.6	4.5	11	41	46	19	26	125	90	69	51	74
3	4.1	4.8	14	46	50	19	23	114	90	107	20	66
4	3.8	5.0	14	43	45	17	22	107	71	159	71	57
5	3.7	5.3	12	37	56	19	22	120	213	117	173	48
6	3.2	5.3	12	38	53	18	19	132	139	85	105	69
7	3.4	5.0	14	38	59	18	20	138	96	79	100	55
8	3.4	5.0	15	41	61	17	22	157	68	69	87	38
9	3.2	4.5	15	42	64	16	20	201	58	57	162	30
10	3.6	4.5	16	42	62	16	20	194	44	50	103	25
11	4.5	4.5	23	42	65	15	18	148	34	43	93	24
12	5.0	4.5	31	44	54	14	24	117	25	30	87	20
13	5.6	4.2	34	48	41	14	135	107	303	22	751	14
14	4.8	4.2	37	42	35	15	170	93	535	33	276	1520
15	4.5	4.5	39	50	36	14	151	89	202	35	302	518
16	4.2	4.8	38	46	36	13	150	88	336	35	230	99
17	4.2	4.8	31	37	39	12	142	139	163	40	223	177
18	4.2	4.8	36	36	40	12	123	283	112	132	187	331
19	4.8	4.5	32	39	40	13	104	310	89	51	154	165
20	6.4	5.3	33	41	37	12	105	274	105	68	154	122
21	6.7	4.8	26	36	31	11	97	249	166	75	381	80
22	6.1	4.8	31	38	29	11	109	240	143	62	203	57
23	5.3	4.8	28	35	26	12	111	233	117	45	2530	44
24	5.3	4.9	29	36	26	12	120	218	109	34	340	35
25	4.5	4.8	27	35	23	13	111	196	99	25	248	25
26	4.8	4.5	29	38	25	13	104	198	92	17	251	23
27	4.8	3.0	33	38	25	16	117	183	86	11	191	22
28	4.8	4.3	35	41	26	17	144	166	87	10	200	15
29	4.5	10	37	41	23	17	191	148	93	6.4	140	12
30	4.5	12	30	43	---	19	161	127	85	5.5	112	15
31	4.5	---	27	45	---	21	---	116	---	7.2	112	---
TOTAL	140.2	152.4	800	1253	1197	475	2603	5150	3950	1656.1	8067	3868
MEAN	4.52	5.08	25.8	40.4	41.3	15.3	86.8	166	132	53.4	260	129
MAX	6.7	12	39	50	65	21	191	310	535	159	2530	1520
MIN	3.2	3.0	11	34	23	11	18	88	25	5.5	20	12
AC-FT	278	302	1590	2490	2370	942	5160	10220	7830	3280	16000	7670

CAL YR 1983 TOTAL 50491.0 MEAN 138 MAX 1200 MIN 3.0 AC-FT 100100
WTR YR 1984 TOTAL 29311.7 MEAN 80.1 MAX 2530 MIN 3.0 AC-FT 58140

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
OCT											
17...	1430	4.3	670	673	8.4	8.2	20.0	16.5	8.8	17	260
DEC											
19...	1330	34	1320	--	7.9	--	4.0	1.0	12.3	21	--
MAR											
12...	1345	16	1490	1480	7.8	8.2	21.0	11.0	11.2	23	530
APR											
23...	1745	112	780	737	8.4	8.3	24.0	17.0	8.0	36	270
JUL											
17...	1400	39	780	746	8.3	8.2	29.0	27.0	7.1	33	270
AUG											
28...	1430	190	790	--	8.0	--	35.0	25.0	7.1	50	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
OCT											
17...	81	56	28	51	1	2.7	190	11	170	14	.40
DEC											
19...	--	--	--	--	--	--	430	.000	--	--	--
MAR											
12...	420	110	63	120	2	3.1	--	--	610	27	.40
APR											
23...	130	57	30	57	2	<2.7	--	--	240	12	.40
JUL											
17...	160	59	29	50	1	3.0	120	8.0	240	11	.50
AUG											
28...	--	--	--	--	--	--	170	.000	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT										
17...	8.0	450	<.10	<.10	.020	1.1	--	.050	<.010	3.7
DEC										
19...	--	--	<.10	--	.030	.37	--	<.010	--	3.0
MAR										
12...	4.3	1000	<.10	<.10	.050	.25	--	<.010	.010	2.1
APR										
23...	9.5	--	.60	.59	.140	.86	1.6	.300	.020	11
JUL										
17...	11	480	<.10	<.10	.030	.67	--	.080	<.010	3.9
AUG										
28...	--	--	.20	.19	.080	.62	.90	.130	.010	5.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
OCT										
17...	1430	1	1	90	1	<1	<10	<10	6	4
MAR										
12...	1345	--	--	80	--	--	--	--	--	--
APR										
23...	1745	--	--	50	--	--	--	--	--	--
JUL										
17...	1400	2	2	70	<1	<1	<10	<10	8	3

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07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 17...	7	6	3	<.1	<.1	<1	<1	60	6
MAR 12...	5	--	--	--	--	--	--	--	--
APR 23...	15	--	--	--	--	--	--	--	--
JUL 17...	<3	7	<1	.1	.3	<1	2	20	6

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
OCT 17...	1430	5.0	6.8	170	2	2	4

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
OCT 17...	10	2	1300	<10	840	<.01	8

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)
OCT 17...	1430	<10	1.8	5.9	1.6	5.1	1.6	.10

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
APR 23...	1745	--	--	--	--	--	--	--	--	--
AUG 28...	1430	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
APR 23...	--	--	--	--	--	--	--	--	--
AUG 28...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
APR									
23...	--	--	--	<.01	<.01	<.01	--	--	--
AUG									
28...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
17...	1430	K9	75
DEC			
19...	1330	K8	K25
JUL			
17...	1400	--	--
AUG			
28...	1430	3400	1200

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
17...	1430	4.3	16.5	61	.71	95
DEC						
19...	1330	34	1.0	67	6.2	86
MAR						
12...	1345	16	11.0	19	.82	82
APR						
23...	1745	112	17.0	256	77	99
JUL						
17...	1400	39	27.0	71	7.5	99
AUG						
28...	1430	190	25.0	219	112	100

07222500 CONCHAS RIVER AT VARIADERO, NM

LOCATION.--Lat 35°24'10", long 104°26'35", in NE¼NE¼ sec.36, T.14 N., R.23 E., San Miguel County, Hydrologic Unit 11080003, on left bank 1.5 mi northeast of Variadero, 14 mi west of Conchas Dam, and at mile 15.0.

DRAINAGE AREA.--523 mi^2 of which 130 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1936 to current year.

REVISED RECORDS.--WSP 1281: 1937-39, 1941-47.

GAGE.--Water-stage recorder. Altitude of gage is 4,390 ft, from topographic map. Prior to Mar. 30, 1942, at site 1.5 mi upstream at different datum. Mar. 30, 1942 to May 18, 1950, at present site at datum 0.5 ft higher.

REMARKS.--Records poor. Diversions for irrigation of about 300 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 14.3 ft^3/s, 10,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft^3/s Sept. 1, 1942, gage height, 19.96 ft, present datum, from rating curve extended above 760 ft^3/s on basis of slope-area measurements at gage heights 10.5 ft and 19.96 ft, present datum; no flow many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 3	0430	*3140	6.28	Aug. 23	0430	1800	4.81

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	2.0	.00	.00	.00	.00	.39	.00	33	.03
2	.00	.00	.00	1.0	.00	.00	.00	.00	.23	.00	23	18
3	.00	.00	.00	.40	.00	.00	.00	.00	600	.00	4.3	3.2
4	.00	.00	.00	1.0	.00	.00	.00	.00	47	.00	20	1.6
5	.00	.00	.00	.60	.00	.00	.00	.00	18	.00	16	.73
6	.00	.00	.00	.40	.00	.00	.00	.00	11	.00	5.4	.27
7	.00	.00	.00	.20	.00	.00	.00	.00	5.1	.00	5.8	.11
8	.00	.00	.00	.10	.00	.00	.00	.00	1.8	.00	22	.04
9	.00	.00	.00	.05	.00	.00	.00	.00	.79	.00	6.3	.02
10	.00	.00	.00	.00	.00	.00	.00	.00	.35	.00	2.2	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00	1.0	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.43	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	1.3	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	105	.00	5.7	58
15	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	1.5	53
16	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.43	12
17	.00	.00	.00	.00	.00	.00	.00	.00	6.0	.00	.17	3.7
18	.00	.00	.00	.00	.00	.00	.00	7.7	3.9	.00	.04	2.6
19	.00	.00	.00	.00	.00	.00	.00	11	2.5	.00	.02	3.1
20	.00	.00	.00	.00	.00	.00	.00	4.7	1.2	.00	.00	2.6
21	.00	.00	.00	.00	.00	.00	.00	3.2	.70	.00	.00	1.2
22	.00	.00	.00	.00	.00	.00	.00	2.5	.40	.00	4.1	.58
23	.00	.00	.00	.00	.00	.00	.00	2.1	.20	.00	285	.39
24	.00	.00	.00	.00	.00	.00	.00	2.0	.15	.00	24	.31
25	.00	.00	.00	.00	.00	.00	.00	1.8	.07	.00	6.9	.20
26	.00	.00	.10	.00	.00	.00	.00	1.6	.01	.00	3.2	.10
27	.00	.00	.50	.00	.00	.00	.00	1.4	.00	.00	1.8	.05
28	.00	.00	4.0	.00	.00	.00	.00	1.2	.00	.00	.91	1.3
29	.00	.00	2.0	.00	.00	.00	.00	.97	.00	.00	.35	.31
30	.00	.00	1.0	.00	---	.00	.00	.73	.00	.00	.17	.02
31	.00	---	1.0	.00	---	.00	---	.58	---	.00	.09	---
TOTAL	.00	.00	8.60	5.75	.00	.00	.00	41.48	835.05	.00	475.11	163.46
MEAN	.000	.000	.28	.19	.000	.000	.000	1.34	27.8	.000	15.3	5.45
MAX	.00	.00	4.0	2.0	.00	.00	.00	11	600	.00	285	58
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	17	11	.00	.00	.00	82	1660	.00	942	324

CAL YR 1983 TOTAL 720.73 MEAN 1.97 MAX 196 MIN .00 AC-FT 1430
WTR YR 1984 TOTAL 1529.45 MEAN 4.18 MAX 600 MIN .00 AC-FT 3030

07223000 BELL RANCH CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'07", San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, on left bank 1,270 ft downstream from Conchas Dam, and 23.5 mi north of Newkirk.

PERIOD OR RECORD.--October 1942 to Sept. 1984 discontinued. Prior to October 1965, published as "near Conchas Dam."

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,150 ft, from headgate elevations.

REMARKS.--Records good except those below 1.0 ft^3/s, which are poor. Canal diverts from Conchas Lake (station 07223500) for irrigation of about 700 acres on Bell Ranch. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft^3/s, July 10-13, Sept. 7-10, 1948, June 27, Aug. 7, 1951; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 9.0 ft^3/s Sept. 18; no flow many days.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October	5.8	0	1.68	104
November	2.3	0	1.30	77
December	0	0	0	0
CAL YR 1983	9.8	0	2.32	1,700
January	0	0	0	0
February	0	0	0	0
March	1.6	0	0.08	5.2
April	6.1	0	3.59	214
May	6.0	0	4.69	289
June	6.3	5.8	6.00	357
July	7.6	0	5.99	368
August	7.4	6.6	6.89	423
September	9.0	7.3	8.54	508
WTR YR 1984	9.0	0	3.23	2,350

07223500 CONCHAS LAKE AT CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'25", San Miguel County, Hydrologic Unit 11080003, in Pablo Montoya Grant, stilling well within concrete portion of Conchas Dam on Canadian River, 24 mi north of Newkirk, and at mile 746.0.

DRAINAGE AREA.--7,409 mi^2, of which 433 mi^2, is probably noncontributing.

PERIOD OF RECORD.--December 1938 to September 1965 (monthend contents only), October 1965 to current year. Prior to October 1965, published as Conchas Reservoir near Conchas Dam.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 330,100 acre-ft between elevations 4,060.0 ft and 4,201.0 ft, crest of 300 ft ungated service spillway. Inactive storage, 70,490 acre-ft, at elevation 4,155.0 ft. Lake usually not drawn below elevation, 4,157.35 ft, sill of irrigation outlet, capacity, 77,790 acre-ft, except for minor sluicing; at times irrigation water is pumped into Conchas Canal. Capacity of 198,800 acre-ft between elevations 4,201.0 ft, crest of 300 ft ungated service spillway, and 4,218.0 ft, crest of 3,000 ft ungated emergency spillway, acts as detention storage in the control of floods. Figures given herein represent total contents. Lake is used for irrigation, flood control, and recreation. Diversions above station for irrigation of about 57,000 acres. Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres near Tucumcari, and on Bell Ranch.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 479,600 acre-ft Apr. 24, 1942, elevation, 4,208.41 ft; minimum after initial filling, 78,080 acre-ft Sept. 18, 1976, elevation, 4,157.44 ft; minimum elevation, 4,155.80 ft Sept. 24, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 238,700 acre-ft Oct. 1, elevation, 4,190.26 ft; minimum, 194,600 acre-ft Aug. 11, 12, elevation, 4,183.58 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on Survey by Corps of Engineers in 1970)

4,180	173,900
4,190	237,100
4,200	320,500

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238700	225900	223100	223200	224600	225100	221400	212700	209400	210700	196900	204800
2	238100	225900	223200	223200	224600	225100	221300	212400	209000	210800	196300	204500
3	237300	225900	223200	223300	224600	225100	221200	212200	210500	210000	195900	204300
4	236500	225800	223200	223400	224600	225100	221100	211900	210400	209700	195600	203900
5	235900	225700	223200	223400	224700	225100	220900	211600	210300	209600	195200	203500
6	235200	225700	223200	223400	224800	225100	220700	211300	210200	209600	195000	203000
7	234400	225600	223100	223500	224900	225000	220600	211100	209800	209300	194700	202400
8	233700	225400	223000	223600	225000	225000	220400	210900	209400	208500	194800	201900
9	233100	225200	223000	223700	225000	225000	220200	210700	209000	208200	194800	201400
10	232400	225200	223000	223800	225100	225000	220100	210500	208600	208000	194700	200800
11	231900	225100	223000	223800	225200	224900	219600	210200	208100	207600	194600	200100
12	231400	224900	223000	223800	225200	224900	219300	209800	207500	207200	194600	199400
13	230800	224900	222900	223900	225200	224900	219100	209300	206900	206900	195600	198700
14	230100	224800	222800	223900	225300	224900	219100	208700	208500	206400	196400	197500
15	229400	224600	223000	224000	225300	224800	219000	208400	208800	205900	196700	205500
16	228800	224500	223100	224000	225300	224800	218900	208500	209300	205800	197000	205600
17	228200	224400	223000	224100	225300	224800	218700	208700	209300	205600	197100	205400
18	227700	224300	223000	224100	225300	224500	218300	208700	209800	205400	197100	205200
19	227500	224300	223000	224100	225300	224100	218100	209000	209800	205000	197300	205200
20	227500	224200	223000	224100	225300	223700	217400	209600	209700	204600	197200	204800
21	227200	224100	223000	224100	225300	223300	217000	209600	209600	204200	197400	204300
22	227000	223900	223000	224100	225300	223100	216500	209800	209600	203700	197700	203800
23	226900	223900	223000	224200	225300	222800	216000	210100	209400	203300	202600	203200
24	226600	223900	222900	224300	225200	222500	215600	210300	209500	202500	203600	202400
25	226400	223700	222900	224300	225200	222300	214900	210200	209600	201900	204200	201600
26	226400	223600	222900	224300	225200	222000	214300	210300	209600	201300	204500	201200
27	226300	223500	222900	224400	225200	221900	213400	210300	209400	200500	204800	200600
28	226100	223300	223000	224500	225200	221800	213100	210200	209200	199800	204900	200300
29	226100	223200	223000	224500	225200	221600	213000	210100	210300	199000	205000	199900
30	226100	223200	223000	224500	---	221500	212900	210000	210200	198100	205000	199400
31	226000	---	223100	224600	---	221400	---	209600	---	197600	204900	---
MAX	238700	225900	223200	224600	225300	225100	221400	212700	210500	210800	205000	205600
MIN	226000	223200	222800	223200	224600	221400	212900	208400	206900	197600	194600	197500
(†)	4188.44	4188.03	4188.02	4188.24	4188.32	4187.77	4186.50	4185.99	4186.06	4184.07	4185.25	4184.37
(††)	-13200	-2800	-100	+1500	+600	-3800	-8500	-3300	+600	-12600	+7300	-5500

CAL YR 1983 MAX 291500 MIN 222800 (††) -17900
WTR YR 1984 MAX 238700 MIN 194600 (††) -39800

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET

07226500 UTE CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec.15, T.14 N., R.32 E., Harding County, Hydrologic Unit 11090007, on right bank 1.9 mi downstream from Alamosa Creek, 4.5 mi upstream from State Road 155, 4.7 mi upstream from high-water line of Ute Reservoir, 8.2 mi northwest of Logan, and at mile 10.0.

DRAINAGE AREA.--2,060 mi^2, of which 617 mi^2 is probably noncontributing.

PERIOD OF RECORD.--January 1912 to May 1914 (gage heights and discharge measurements only), January 1942 to current year. Records of discharge for August 1904 to June 1906, April 1909 to December 1911, published in WSP 307, are unreliable and should not be used.

REVISED RECORDS.--WSP 1281: 1942-48, 1950, 1951(P), WDR NM-81: 1965(P), 1967-68(M), 1969(P), 1971(M), 1972, 1975(M), 1977, 1979. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 3,815 ft, from topographic map. See WSP 2121 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records poor. Diversions for irrigation of a few hundred acres above station. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--42 years, 23.7 ft^3/s, 17,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s May 28, 1946, July 12, 1951, gage height, 8.4 ft, site and datum then in use, from rating curve extended above 7,700 ft^3/s on basis of slope-area measurements at gage heights 5.2 ft and 7.2 ft; maximum gage height, 9.94 ft Aug. 11, 1981; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1, 1914, reached a stage of 22.95 ft site and datum then in use. Another major flood reached a stage of 16.0 ft, 1942 datum, sometime in 1941, from information furnished by Bureau of Reclamation; discharge, about 70,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,680 ft^3/s Aug. 23, gage height, 4.20 ft, no peak above base of 3,700 ft^3/s; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.37	.00	41	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.01	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	3.6	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	10	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00
21	.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.8	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	799	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	461	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	215	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	125	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	37	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	1.3	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.05	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	10.27	.00	.00	.00	.00	.00	.00	.00	4.10	27.00	1708.18	.00
MEAN	.33	.000	.000	.000	.000	.000	.000	.000	.14	.87	55.1	.000
MAX	10	.00	.00	.00	.00	.00	.00	.00	3.6	24	799	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	20	.00	.00	.00	.00	.00	.00	.00	8.1	54	3390	.00

CAL YR 1983 TOTAL 797.60 MEAN 2.19 MAX 81 MIN .00 AC-FT 1580
WTR YR 1984 TOTAL 1749.55 MEAN 4.78 MAX 799 MIN .00 AC-FT 3470

07226800 UTE RESERVOIR NEAR LOGAN, NM

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¼ sec.21, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on face of Ute Dam on Canadian River, 2.5 mi southwest of Logan, 3.5 mi downstream from Ute Creek, and at mile 673.1.

DRAINAGE AREA.--11,140 mi^2, of which 1,110 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1963 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Interstate Stream Commission). Prior to Feb. 25, 1974, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam 121 ft high above streambed, 2,050 ft long; an earth- dike section on north (left) bank of Canadian River is 2,860 ft long and has a maximum height of 27 ft; a concrete spillway section 840 ft long is constructed between main embankment and the dike. Construction completed in May 1963; storage began Dec. 13, 1962. Capacity, 90,470 acre-ft at elevation 3,760.0 ft, crest of 840 ft ungated service spillway. Top of dam is at elevation 3,801.0 ft. Maximum design capacity of 285,700 acre-ft at elevation 3,791.0 ft, 31.0 ft above crest of spillway, allows 195,200 acre-ft of capacity for protection of the structure. Dead storage, 12,620 acre-ft at elevation 3,725.0 ft, sill of outlet gate; inactive pool of 37,530 acre-ft below elevation 3,741.6 ft is maintained for fish and wildlife. Figures given herein represent total contents. Reservoir is planned to furnish water for municipal and industrial uses and for recreational purposes; some incidental flood control. Diversions above station for irrigation of about 90,000 acres.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 119,900 acre-ft June 17, 1969, elevation, 3,762.4 ft; minimum since reservoir first filled in September 1965, 68,680 acre-ft Apr. 12, 1977, elevation, 3,753.59 ft; minimum elevation observed, 3,752.8 ft May 29, 1966, contents, 82,360 acre-ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 41,160 acre-ft Aug. 28, elevation, 3,744.02 ft; minimum, 31,320 acre-ft June 6, elevation, 3,739.10 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Geological Surveys and New Mexico Interstate Stream Commission)

Oct. 1 to Dec. 31
(Based on survey by USGS & ISC in 1975)

3738	30660	3744	42720
3740	34350	3746	47460
3742	38360		

Jan. 1 to Sept. 30
(Based on survey by USGS & ISC in 1983)

3738	29370	3744	41110
3740	32960	3746	45770
3742	36840		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34590	34680	33530	32250	32500	32360	32340	31800	31380	32780	32650	41000
2	34600	34640	33530	32270	32500	32360	32410	31800	31360	32720	32670	40910
3	34620	34600	33530	32280	32550	32360	32380	31820	31360	32870	32830	40870
4	34620	34510	33630	32280	32550	32320	32410	31800	31340	32920	33220	40820
5	34640	34450	33660	32260	32550	32320	32400	31820	31340	33070	33320	40780
6	34660	34430	33660	32390	32550	32360	32380	31820	31320	33020	33300	40720
7	34680	34410	33640	32410	32550	32340	32380	31800	31470	32980	33940	40630
8	34700	34320	33640	32410	32550	32300	32360	31780	31610	32900	33980	40500
9	34700	34280	33630	32390	32570	32290	32360	31760	31720	32830	34230	40470
10	34740	34220	33610	32360	32570	32230	32340	31740	31830	32800	34580	40450
11	34760	34160	33610	32360	32550	32200	32320	31720	32000	32780	34700	40410
12	34800	34120	33610	32360	32540	32200	32380	31700	32120	32800	34720	40360
13	34800	33990	33590	32370	32540	32180	32270	31680	32250	32780	35000	40340
14	34800	33840	33590	32392	32540	32180	32230	31660	32380	32700	35240	40230
15	34800	33800	33680	32410	32540	32100	32200	31640	32500	32500	35410	40360
16	34800	33740	33680	32430	32520	32070	32220	31620	32610	32780	35470	40760
17	34780	33760	33680	32430	32520	32070	32180	31600	32720	32870	35450	40780
18	34780	33800	33680	32450	32580	32050	32100	31600	32820	33000	35440	40780
19	34880	33820	33660	32460	32460	32010	32120	31600	32960	33040	35410	40760
20	34950	33820	33630	32460	32460	32030	32090	31580	33000	33050	35370	40740
21	35150	33800	33630	32460	32460	32030	32010	31560	33050	33040	35320	40670
22	35170	33780	33610	32480	32460	32030	32030	31540	33050	33000	35340	40650
23	35130	33740	33610	32480	32450	32070	32030	31520	32980	32980	36920	40630
24	35030	33720	33590	32500	32450	32100	32030	31500	33000	32900	38670	40560
25	34930	33660	33590	32500	32430	32120	32010	31500	33050	32890	39930	40410
26	34910	33650	33590	32500	32410	32120	31960	31480	32940	32870	40870	40450
27	34910	33630	33590	32500	32390	32120	31900	31460	32870	32810	41110	40360
28	34900	33570	33590	32500	32370	32120	31830	31440	32780	32760	41160	40320
29	34800	33530	33590	32500	32370	32120	31940	31440	32810	32740	41140	40300
30	34740	33530	33590	32500	---	32180	31940	31420	32780	32720	41070	40340
31	34720	---	33610	32500	---	32200	---	31400	---	32690	41050	---
TOTAL	1079090	1020000	1042060	1004842	942480	997540	965550	980600	969400	1018590	1119510	1217360
MAX	35170	34680	33680	32500	32580	32360	32410	31820	33050	33070	41160	41000
MIN	34590	33530	33530	32250	32370	32010	31830	31400	31320	32500	32650	40230
(†)	3740.19	3739.57	3739.61	3739.75	3739.68	3739.58	3739.44	---	3739.90	3739.85	3743.97	3743.65
(††)	+190	-1190	-920	+250	-130	-170	-260	-540	+1380	-90	+8360	-710

CAL YR 1983 TOTAL 13508120 MAX 42420 MIN 33530 (†† -8250
WTR YR 1984 TOTAL 12357022 MAX 41160 MIN 31320 (††) +5780 *

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET
* COMPUTED ON BASIS OF REVISED CAPACITY TABLE PUT INTO USE JAN. 1, 1984

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected in Ute Reservoir impounded by Ute Dam on the Canadian River.

PERIOD OF RECORD.--Water years 1963 to current year.

REMARKS.--Samples for chemical analyses are collected semiannually at surface and/or bottom levels of selected sites. Site locations are as follows: Site A, 0.4 mi upstream from Ute Dam; Site B, 0.6 mi upstream from Ute Dam; Site C, 1.9 mi upstream from Ute Dam; Site D, on the Ute Creek arm, 5.7 mi upstream from Ute Dam; Site E, 3.8 mi upstream from Ute Dam at confluence of Ute Creek and Canadian River arms; Site F, on the Canadian River arm, 9.1 mi upstream from Ute Dam; Site G, on the Ute Creek arm, 6.9 mi upstream from Ute Dam; Site H, on the Canadian River arm, 12.8 mi upstream from Ute Dam; Site I, on the Canadian River arm, 5.0 mi upstream from Ute Dam.

07226510 - UTE RE AT SITE F, 9.1 MILES AB UTE DAM, NM (LAT 35°20'21" LONG 103°33'07")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
AUG								
16...	1030	5.00	8.0	520	8.9	28.5	24.0	4.2
16...	1032	1.00	8.0	--	--	--	26.0	7.7

07226515 - UTE RE AT SITE I, 5.0 MILES AB UTE DAM, NM (LAT 35°21'03" LONG 103°31'00")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
AUG								
16...	1050	20.0	23.0	--	--	--	24.5	2.6
16...	1052	15.0	23.0	--	--	--	25.0	6.2
16...	1054	10.0	23.0	--	--	--	25.5	6.9
16...	1056	5.00	23.0	990	8.8	29.5	25.5	7.7
16...	1058	1.00	23.0	--	--	--	26.0	7.9

07226560 - UTE RE AT SITE B, 0.6 MILES AB UTE DAM, NM (LAT 35°20'32" LONG 103°27'16")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)
AUG											
16...	0900	32.5	37.5	1080	1070	8.1	8.1	25.5	24.5	1.8	10
16...	0902	30.0	37.5	--	--	--	--	--	24.5	2.9	--
16...	0904	25.0	37.5	--	--	--	--	--	25.0	3.9	--
16...	0906	20.0	37.5	--	--	--	--	--	25.0	5.4	--
16...	0908	15.0	37.5	--	--	--	--	--	25.0	5.8	--
16...	0910	10.0	37.5	--	--	--	--	--	25.5	7.2	--
16...	0912	5.00	37.5	--	--	--	--	--	25.5	7.2	--
16...	0914	1.00	37.5	--	--	--	--	--	25.5	7.2	--

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
AUG											
16...	210	6	41	26	130	4	6.1	240	4.0	230	71
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

07226560 - UTE RE AT SITE B, 0.6 MILES AB UTE DAM, NM (LAT 35°20'32" LONG 103°27'16")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
AUG										
16...	.70	2.3	630	<.10	<.10	.060	.44	.010	.020	4.8
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
AUG										
16...	0900	2	2	240	<1	<1	<10	<10	1	1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG									
16...	5	<1	<1	2.5	.1	<1	<1	10	13

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)
AUG							
16...	0900	12	36	2	<1	10	<10

DATE	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG						
16...	17	5200	20	390	.81	30

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG									
16...	0900	<16	.7	12	1.2	10	1.1	.14	8.1

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

07226560 - UTE RE AT SITE B, 0.6 MILES AB UTE DAM, NM (LAT 35°20'32" LONG 103°27'16")

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
AUG 16...	0900	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
AUG 16...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
AUG 16...	<.01	<1	<.01	.02	<.01	.01	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	RESER-VOIR DEPTH (FEET) (72025)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
AUG 16...	0900	32.5	37.5	0	10

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG 16...	0900	24.5	12	67

07227000 CANADIAN RIVER AT LOGAN, NM

LOCATION.--Lat 35°21'25", long 103°25'03", in NE¼NE¼ sec.15, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on left bank 1,100 ft upstream from bridge on U.S. Highway 54, 0.7 mi south of Logan, 1.4 mi upstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 2.0 mi downstream from Ute Dam, 4.3 mi upstream from Revueito Creek, and at mile 672.0.

DRAINAGE AREA.--11,141 mi^2, of which 1,100 mi^2 is probably noncontributing.

PERIOD OF RECORD.--June 1904 to November 1905 (gage heights and discharge measurements only), December 1908 to September 1909, February 1910, April to July 1910, August 1910 to September 1911 (gage heights and discharge measurements only), October 1911 to May 1914, January to May 1924, September 1924 to July 1925, January 1927 to April 1934, August 1934 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for December 1909, January 1910, and May to July 1934, published in WSP 267, 287, and 762 are unreliable and should not be used. Published as South Canadian River June to September 1904.

REVISED RECORDS.--WSP 1087: 1935-36. WSP 1117: Drainage area. WSP 1281: 1912, 1932(M), 1934, 1945-47, 1949-50. WSP 1311: 1931(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,668.1 ft National Geodetic Vertical Datum of 1929. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

REMARKS.--Records fair. Flow regulated by Conchas Lake, 45 mi upstream (station 07223500) and Ute Reservoir, 2 mi upstream (station 07226800). Diversions for irrigation of about 90,000 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1909, 1912-13, 1927-38), 392 ft^3/s, 284,000 acre-ft/yr, prior to completion of Conchas dam.
24 years (water years 1939-62), 257 ft^3/s, 186,200 acre-ft/yr, prior to completion of Ute Dam.
22 years (water years 1963-84), 38.0 ft^3/s, 27,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1925).--Maximum discharge, 219,000 ft^3/s Sept. 22, 1941, gage height, 29.3 ft from floodmarks, from rating curve extended above 75,000 ft^3/s; no flow at times prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft^3/s Sept. 30, 1904, gage height, about 36.5 ft, site and datum used in 1909, from rating curve extended above 14,000 ft^3/s, from Ninth Biennial Report of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 87 ft^3/s Aug. 23, gage height, 2.43 ft; minimum, 0.47 ft^3/s Nov. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.7	.77	1.4	1.8	2.0	2.6	1.9	1.4	2.1	1.7	1.5
2	1.2	1.7	.96	1.4	1.8	2.0	2.8	1.8	1.6	2.1	1.7	1.6
3	1.2	1.8	1.1	1.5	1.8	2.0	2.3	1.8	2.1	2.7	1.7	1.6
4	1.2	1.8	.96	1.5	1.8	2.0	2.2	1.8	1.4	2.3	1.7	1.6
5	1.2	1.8	1.0	1.5	1.8	2.0	2.2	1.8	1.4	2.0	1.6	1.6
6	1.0	1.8	.98	1.5	1.8	2.0	2.2	1.8	1.4	1.8	1.6	1.6
7	1.1	1.9	.98	1.6	1.5	2.1	2.2	1.8	1.8	1.7	4.2	1.4
8	1.1	1.7	1.0	1.6	1.8	2.1	2.2	1.8	1.5	1.7	3.5	1.6
9	1.2	1.7	1.0	1.5	2.1	2.0	2.2	1.8	1.2	1.7	1.6	2.1
10	1.2	1.9	1.0	1.5	2.0	2.1	2.1	1.8	1.4	1.6	2.0	1.6
11	1.1	1.7	1.1	1.5	2.0	2.0	2.1	1.8	1.5	1.6	1.6	1.5
12	1.2	1.5	1.1	1.6	2.0	2.0	2.1	1.8	1.4	1.6	1.6	1.6
13	1.4	1.4	1.1	1.6	2.0	2.1	2.1	1.8	2.2	2.4	1.6	1.7
14	1.6	1.3	1.1	1.6	1.7	2.0	2.1	1.8	2.6	1.8	1.6	1.6
15	1.4	1.3	1.1	1.6	1.8	2.0	1.9	1.8	2.0	1.8	1.5	1.7
16	1.5	1.1	1.2	1.7	1.9	1.9	1.9	1.8	2.0	6.4	1.5	1.8
17	1.7	.65	1.2	1.7	1.9	1.9	1.9	2.0	2.0	4.0	1.5	1.7
18	1.8	.65	1.5	1.7	1.9	1.8	1.9	2.1	2.1	1.8	1.5	1.7
19	2.0	.77	1.4	1.7	2.0	1.9	1.8	1.8	2.0	2.0	1.5	1.7
20	5.7	.61	1.4	1.6	1.7	2.0	1.8	1.8	2.1	1.5	1.5	1.7
21	2.8	.65	1.7	1.6	2.0	2.0	1.8	1.8	2.0	1.4	1.5	1.7
22	1.6	.65	1.6	1.6	1.9	2.1	1.7	1.7	2.0	1.4	1.5	1.7
23	1.5	.69	1.6	1.7	2.1	2.1	1.7	1.8	2.0	1.5	9.0	1.7
24	1.3	.69	1.4	1.7	2.1	2.0	1.7	1.7	2.0	1.5	2.3	1.6
25	1.4	.69	1.2	1.7	1.9	1.8	1.6	1.7	2.0	1.5	2.7	1.6
26	1.5	.65	1.3	1.7	2.1	1.8	1.5	1.7	2.0	1.5	2.0	1.8
27	1.6	.73	1.5	1.8	1.7	2.1	1.6	1.7	2.0	1.6	1.9	1.8
28	1.5	.73	1.7	1.8	2.1	1.9	1.8	1.8	2.1	1.5	1.7	1.8
29	2.0	.73	1.5	1.8	2.0	1.9	2.2	1.6	2.0	1.7	1.6	1.8
30	1.6	.77	1.5	1.8	---	2.2	1.9	1.6	2.1	1.6	1.5	1.8
31	1.6	---	1.5	1.8	---	2.1	---	1.4	---	1.5	1.5	---
TOTAL	49.4	35.76	38.45	50.3	55.0	61.9	60.1	55.1	55.3	61.3	63.9	50.2
MEAN	1.59	1.19	1.24	1.62	1.90	2.00	2.00	1.78	1.84	1.98	2.06	1.67
MAX	5.7	1.9	1.7	1.8	2.1	2.2	2.8	2.1	2.6	6.4	9.0	2.1
MIN	1.0	.61	.77	1.4	1.5	1.8	1.5	1.4	1.2	1.4	1.5	1.4
AC-FT	98	71	76	100	109	123	119	109	110	122	127	100

CAL YR 1983 TOTAL 7136.31 MEAN 19.6 MAX 270 MIN .61 AC-FT 14150
WTR YR 1984 TOTAL 636.71 MEAN 1.74 MAX 9.0 MIN .61 AC-FT 1260

NOTE.--No gage height record Dec. 21 to Jan. 31.

07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'29", long 103°23'37", in SW¼NW¼ sec.24, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080008, on right bank 0.3 mi upstream from bridge on State Highway 39, 1.9 mi southeast of Logan, and at mile 2.3.

DRAINAGE AREA.--786 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,665 ft, from topographic map. Prior to Jan. 16, 1981, at site 320 ft upstream at datum 0.56 ft higher.

REMARKS.--Water-discharge records fair. Low flows supplemented by surface and ground water return from irrigation in vicinity of Tucumcari.

AVERAGE DISCHARGE.--25 years, 44.4 ft^3/s, 32,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft^3/s July 9, 1960, gage height, 14.3 ft, site and datum then in use; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD (1941-47).--Maximum discharge determined, about 13,400 ft^3/s Sept. 18, 1946, gage height, 9.04 ft, at site 180 ft downstream at different datum, from unpublished records collected by Bureau of Reclamation.

A peak of 26,100 ft^3/s, date unknown, gage height, 12.9 ft at former site and datum, was measured by slope-area method in May 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,800 ft^3/s at 1145 hours Aug. 13, gage height, 10.35 ft; no other peak above base of 3,500 ft^3/s; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	6.8	1.9	4.6	4.0	.60	50	55	.35	89	22	4.6
2	8.0	7.8	15	71	3.0	.50	261	29	.32	66	161	7.4
3	5.6	7.9	279	101	2.5	.50	61	18	.91	273	29	6.3
4	4.0	5.1	54	68	2.5	.40	20	11	1.9	161	108	2.8
5	3.7	4.2	15	31	2.3	.40	9.6	8.5	2.0	124	28	3.3
6	4.6	3.4	11	15	2.1	.40	6.9	6.6	1.2	56	7.8	3.0
7	5.3	3.1	4.6	10	1.9	.30	6.5	4.8	.45	18	228	5.0
8	5.6	2.3	3.7	7.3	1.8	.30	5.4	5.3	.21	10	346	8.6
9	6.9	1.9	3.2	4.6	1.6	.20	4.8	4.7	.22	8.5	121	9.2
10	9.8	1.9	2.5	3.2	1.4	.20	3.8	3.0	.18	5.5	57	8.6
11	11	1.9	2.0	3.4	1.4	.20	2.8	2.5	.16	10	54	8.0
12	14	1.5	1.8	2.9	1.3	.10	2.3	2.7	.09	50	69	8.0
13	12	1.3	1.5	1.9	1.3	.10	4.1	3.1	.09	30	2620	8.6
14	13	1.2	1.4	1.5	1.2	.06	4.1	3.7	196	20	421	9.2
15	11	1.1	1.0	2.0	1.2	.06	3.8	6.1	86	10	55	14
16	12	1.0	1.0	2.6	1.1	.04	5.2	12	85	50	13	17
17	11	1.1	1.1	2.8	1.0	.03	5.9	114	57	250	3.7	17
18	21	1.6	1.0	3.0	1.0	.04	5.9	267	214	100	1.6	15
19	31	88	.90	4.0	.90	.06	7.6	256	189	43	.91	17
20	509	41	.90	4.8	.90	.04	9.2	146	238	21	.45	15
21	340	9.1	.80	6.5	.80	.04	9.2	49	149	4.9	.17	15
22	201	4.8	.70	19	.80	.12	9.8	28	90	2.8	.07	15
23	88	4.3	.60	30	.80	2.8	12	15	46	1.6	511	12
24	41	3.9	.80	37	.70	11	10	9.9	18	.66	233	8.0
25	24	3.1	1.0	38	.70	26	10	5.4	8.5	.48	257	10
26	18	1.9	6.0	20	.70	11	6.8	3.5	7.9	.74	80	19
27	14	1.2	4.0	9.8	.70	54	7.4	2.7	5.1	.75	35	45
28	9.4	1.1	1.5	5.9	.60	105	9.7	1.6	5.0	.64	21	57
29	6.6	1.8	1.0	4.3	.60	21	237	1.2	3.6	.62	9.8	68
30	6.3	2.1	1.0	3.1	---	16	127	.89	2.8	.68	7.1	63
31	7.6	---	6.3	2.8	---	105	---	.53	---	1.3	8.0	---
TOTAL	1464.4	217.4	426.20	521.0	40.80	356.49	918.8	1076.72	1408.98	1410.17	5508.60	499.6
MEAN	47.2	7.25	13.7	16.8	1.41	11.5	30.6	34.7	47.0	45.5	178	16.7
MAX	509	88	279	101	4.0	105	261	267	238	273	2620	68
MIN	3.7	1.0	.60	1.5	.60	.03	2.3	.53	.09	.48	.07	2.8
AC-FT	2900	431	845	1030	81	707	1820	2140	2790	2800	10930	991

CAL YR 1983 TOTAL 7508.77 MEAN 20.6 MAX 880 MIN .00 AC-FT 14890
WTR YR 1984 TOTAL 13849.16 MEAN 37.8 MAX 2620 MIN .03 AC-FT 27470

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
OCT 19...	1100	30	1150	1100	8.3	8.2	19.0	14.0	--	290	150
MAR 14...	1130	.10	3500	3710	8.2	8.2	25.0	15.5	8.4	340	31
APR 25...	1600	11	1690	1760	8.6	8.2	28.0	21.0	8.6	400	190
JUL 19...	1230	49	690	700	8.4	8.4	29.5	26.5	7.2	61	0

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 19...	65	32	150	4	5.3	380	44	.50	4.6	770
MAR 14...	63	45	690	17	4.7	480	750	.90	8.9	2200
APR 25...	76	51	230	5	7.5	610	77	.70	3.5	1200
JUL 19...	16	5.0	130	8	3.0	150	26	.50	9.1	420

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT 19...	1100	170	5
MAR 14...	1130	480	<10
APR 25...	1600	270	11
JUL 19...	1230	230	16

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT 19...	1100	30	14.0	801	65	--	--	--	97	--	--
DEC 21...	1100	.80	.0	96	.21	--	--	--	81	--	--
MAR 14...	1130	.10	15.5	8	.00	--	--	--	92	--	--
APR 25...	1600	11	21.0	202	6.0	--	--	--	89	--	--
JUL 19...	1230	49	26.5	9810	1300	73	87	97	99	99	100
AUG 30...	1600	9.8	33.0	41	1.1	--	--	--	97	--	--

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

LOCATION.--Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County, Hydrologic Unit 11080006, 0.1 mi upstream from New Mexico-Texas State line, 5.5 mi downstream from Rana Canyon, and 14.7 mi north of Glenrio.

DRAINAGE AREA.--12,616 mi^2.

PERIOD OF RECORD.--Water years 1969-73, 1975 to current year.

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT										
18...	1200	18	4130	3940	8.5	8.2	22.0	19.5	170	8.9
DEC										
20...	1130	6.8	>8000	9400	7.7	7.6	1.5	.0	15	11.6
MAR										
13...	1100	6.6	>8000	9080	7.8	8.0	23.0	14.5	12	10.0
APR										
24...	1320	12	--	7720	8.4	8.0	24.5	23.5	35	8.3
JUL										
18...	1200	133	1210	1210	8.5	8.4	31.0	28.0	6100	7.5
AUG										
29...	1300	40	2460	3170	8.3	8.4	26.5	30.0	180	7.6

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
OCT										
18...	380	160	72	48	680	16	7.0	220	23	440
DEC										
20...	--	--	--	--	--	--	--	430	.000	--
MAR										
13...	700	450	140	85	1800	30	9.3	310	.000	460
APR										
24...	630	380	120	81	1500	27	8.7	270	17	390
JUL										
18...	44	0	11	3.9	230	16	3.0	140	4.0	110
AUG										
29...	290	110	69	28	540	14	6.3	200	12	240

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVE (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT										
18...	970	.60	6.9	2380	2400	--	<.10	.0[illegible]0	.110	<.010
DEC										
20...	--	--	--	--	--	--	--	--	<.010	--
MAR										
13...	2700	.60	11	5410	5400	56	.25	.040	.020	.010
APR										
24...	2200	.60	9.6	4710	4500	--	.12	.020	.020	.020
JUL										
18...	220	.50	7.8	653	660	--	.51	.070	12.0	.010
AUG										
29...	760	.40	9.0	1790	1800	--	.20	.110	.200	.010

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM -- Continued

(National stream-quality accounting network station)

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
OCT 18...	1200	10	1	<100	<10	<1	<1	1	2	90	4
APR 24...	1320	<10	1	200	<10	<1	1	<1	<1	30	<1
JUL 18...	1200	40	8	84	2.0	<1	<1	<3	2	19	4
AUG 29...	1300	90	3	500	<10	<1	<1	1	3	50	<1

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 18...	110	10	<.1	5	23	<1	<1	1800	16	10
APR 24...	200	40	<.1	4	<1	1	<1	--	42	30
JUL 18...	34	2	.1	<10	<1	<1	<1	300	49	9
AUG 29...	60	<10	.4	<1	2	<1	<1	1800	27	<10

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	1200	390	1400
DEC 20...	1130	K0	K27
MAR 13...	1100	62	15
APR 24...	1320	11	82
JUL 18...	1200	--	--
AUG 29...	1300	2500	1200

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 18...	1200	18	19.5	202	9.8	96
DEC 20...	1130	6.8	.0	188	3.5	76
MAR 13...	1100	6.6	14.5	31	.55	92
APR 24...	1320	12	23.5	58	1.9	90
JUL 18...	1200	133	28.0	19300	6930	99
AUG 29...	1300	40	30.0	320	35	97

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 6 mi north of Colorado-New Mexico State line, 7 mi downstream from Culebra Creek, 10 mi east of Lobatos, 14 mi east of Antonito and at mile 1,722.1.

DRAINAGE AREA.--7,700 mi^2, approximately, including 2,940 mi^2 in closed basin in northern part of San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-04.

REVISED RECORDS.--WSP 210: Drainage area. WSP 1312: 1919 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 7,427.63 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1910, nonrecording gages at same site and datum.

REMARKS.--Water-discharge records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1900-30), 846 ft^3/s, 612,900 acre-ft/yr, includes period of extensive development for irrigation.
54 years (water years 1931-1984), 420 ft^3/s, 304,300 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft^3/s June 8, 1905, gage height, 9.1 ft, from rating curve extended above 8,000 ft^3/s; no flow at times in 1950-51, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of June 8, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,390 ft^3/s at 1500 May 31, gage height, 4.53 ft; minimum daily, 34 ft^3/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	92	185	270	265	305	744	816	3100	636	157	154
2	38	105	200	275	270	300	752	760	2870	601	170	125
3	56	108	215	280	270	305	713	650	2640	587	139	110
4	125	105	245	275	270	330	678	594	2320	544	133	136
5	90	105	275	270	275	290	678	692	1930	490	145	142
6	73	102	280	275	270	335	657	848	1570	425	142	157
7	76	102	275	290	270	350	678	979	1400	385	142	157
8	78	100	255	300	275	340	713	1010	1140	405	216	157
9	73	98	260	295	280	350	728	1020	979	380	250	154
10	58	98	270	295	285	355	744	1110	864	395	178	142
11	55	102	295	295	290	370	792	1340	784	440	164	142
12	58	110	305	290	290	385	776	1540	706	455	151	128
13	60	110	305	290	295	420	768	1730	752	405	112	112
14	56	110	295	295	300	450	776	2000	800	365	98	102
15	69	110	280	280	290	520	816	2280	907	350	92	105
16	69	110	255	290	305	580	880	2520	1040	350	88	112
17	67	110	265	285	305	620	997	2640	1130	350	82	108
18	62	112	260	280	325	680	1070	2560	1150	380	85	110
19	60	85	270	280	315	680	1090	2140	1090	365	105	130
20	62	135	290	270	320	720	1330	1920	889	335	115	133
21	62	140	300	265	315	750	1450	1760	832	306	174	133
22	55	95	300	250	310	880	1400	1840	925	270	212	128
23	51	110	300	245	310	810	1270	2310	1040	242	258	122
24	55	95	290	250	305	910	1200	2750	1050	220	250	120
25	50	100	310	245	310	1020	1230	2840	898	181	262	110
26	56	95	330	250	315	898	1190	3030	898	154	278	102
27	51	85	345	255	300	856	988	3120	997	148	325	95
28	55	85	280	260	305	808	848	3040	1020	139	290	92
29	60	130	315	260	310	776	784	3140	925	130	254	88
30	71	160	290	270	---	752	816	3200	744	125	220	85
31	88	---	290	270	---	744	---	3310	---	130	184	---
TOTAL	1973	3204	8630	8500	8545	17889	27556	59489	37390	10688	5471	3691
MEAN	63.6	107	278	274	295	577	919	1919	1246	345	176	123
MAX	125	160	345	300	325	1020	1450	3310	3100	636	325	157
MIN	34	85	185	245	265	290	657	594	706	125	82	85
AC-FT	3910	6360	17120	16860	16950	35480	54660	118000	74160	21200	10850	7320

CAL YR 1983 TOTAL 195460 MEAN 536 MAX 3150 MIN 23 AC-FT 387700
WTR YR 1984 TOTAL 193026 MEAN 527 MAX 3310 MIN 34 AC-FT 382900

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to 1981.
WATER TEMPERATURES: October 1975 to 1981.

INSTRUMENTATION.--Water-quality monitor October 1975 to 1981.

REMARKS.--Replaces station 08249200 Rio Grande above Culebra Creek, near Lobatos, Colo. which was discontinued July 1969. This station operated by the Colorado District.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT									
18...	1245	65	393	406	8.4	8.7	11.0	2.0	11.8
DEC									
30...	1215	275	--	176	8.0	7.6	.5	6.1	10.6
FEB									
14...	1445	E289	194	195	7.4	7.8	.0	3.5	10.4
APR									
24...	1345	1[illegible]	166	184	8.0	7.9	12.0	26	7.8
JUN									
25...	1600	1010	286	291	8.4	7.9	20.0	7.6	9.3
AUG									
21...	1030	170	--	365	8.5	8.2	18.0	7.0	--

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT									
18...	130	9	40	8.3	34	1	4.6	69	9.3
DEC									
30...	75	0	23	4.2	11	.6	2.5	20	3.0
FEB									
14...	69	0	21	3.9	11	.6	2.6	22	2.8
APR									
24...	63	2	19	3.8	11	.6	2.7	22	3.7
JUN									
25...	82	14	24	5.2	22	1	4.1	63	5.8
AUG									
21...	120	11	36	7.6	33	1	5.6	61	8.5

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT								
18...	.60	22	270	260	<.10	.080	.170	.120
DEC								
30...	.30	29	--	140	.27	.080	.100	.090
FEB								
14...	.20	29	132	140	.27	.300	.110	.080
APR								
24...	.20	22	121	120	.15	.220	.170	.050
JUN								
25...	.30	19	195	190	<.10	.020	.120	.050
AUG								
21...	.50	23	232	240	.21	<.010	.190	.040

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
OCT 18...	1245	20	3	46	<.5	<1	<1	<3	8	29	<1
FEB 14...	1445	10	<1	32	<.5	1	<1	<3	3	31	3
JUN 25...	1600	130	<1	35	<1.0	<1	1	<3	3	230	<1
AUG 21...	1030	40	2	35	1.0	<1	<1	<3	5	36	<1

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 18...	46	15	.1	<10	2	<1	1	350	<6	5
FEB 14...	11	19	<.1	<10	<1	<1	<1	160	<6	<3
JUN 25...	14	21	<.1	<10	4	<1	<1	220	<6	11
AUG 21...	10	8	<.1	<10	1	<1	<1	310	7	5

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
OCT 18...	1245	<6.6	<.5	<3.5	.5	<3.0	.5	.07	2.1
JUN 25...	1600	<3.7	1.7	3.9	1.3	3.3	1.1	.07	.8

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	<4	K12
DEC 30...	K20	300
FEB 14...	K60	270
JUN 25...	K32	120
AUG 21...	<3	K7

08252500 COSTILLA CREEK ABOVE COSTILLA DAM, NM

LOCATION.--Lat 36°53'52", long 105°15'16", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 1,900 ft upstream from normal high-water line of Costilla Reservoir, 2.1 mi northeast of Costilla Dam, 16 mi southeast of Costilla, and at mile 36.9.

DRAINAGE AREA.--25.1 mi^2.

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Prior to October 1951, published as "above reservoir, near Costilla."

REVISED RECORDS.--WSP 878: 1937. WSP 1923: 1937-50, drainage area.

GAGE.--Water-stage recorder. Concrete control since Sept. 17, 1965. Altitude of gage is 9,429 ft, from topographic map. See WSP 1923 for history of changes prior to Sept. 17, 1965.

REMARKS.--Records good. Natural flow may be augmented by transbasin diversions or irrigation returns from about 1,300 acres irrigated from Casias Creek (station 08253000). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,870 ft^3/s July 22, 1954, gage height, about 4.8 ft, from floodmarks, site and datum then in use, on basis of slope-area measurement of peak flow; minimum not determined. The flood in 1954 destroyed the gaging station and is highest since about 1909, from information by local range rider.

A portion of this flow may have originated in Casias Creek basin (see REMARKS).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 23	2330	*113	3.38	Aug. 18	2130	57	2.87

* Minimum discharge, not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1						---	12	44	11	7.2	6.4
2	4.9						---	13	40	9.3	11	6.4
3	4.3						---	16	35	8.8	8.2	8.0
4	4.1						---	14	31	8.3	6.0	5.9
5	4.0						---	24	28	8.6	5.5	5.5
6	4.1						---	17	25	12	6.0	5.2
7	---						---	16	22	8.2	11	4.8
8	---						---	19	20	7.9	8.7	4.7
9	---						---	27	18	8.6	5.7	4.6
10	---						---	34	16	7.3	5.2	4.5
11	---						---	38	16	7.1	5.0	4.6
12	---						---	43	15	6.8	6.2	4.5
13	---						---	43	16	6.4	5.8	4.4
14	---						---	49	18	9.8	6.2	4.5
15	---						---	55	17	11	6.0	4.7
16	---						---	83	16	8.5	5.3	4.7
17	---						24	63	15	7.5	4.9	6.2
18	---						18	57	15	6.6	10	4.5
19	---						17	57	14	6.3	24	4.3
20	---						12	60	13	5.8	11	4.4
21	---						8.6	71	12	5.5	9.5	4.6
22	---						8.8	79	11	5.4	9.7	4.5
23	---						10	88	11	5.1	15	4.2
24	---						15	93	11	5.1	16	4.0
25	---						16	78	15	5.1	9.5	3.8
26	---						12	65	17	5.1	8.3	4.2
27	---						9.4	59	15	5.4	7.7	4.5
28	---						9.1	53	14	5.6	7.2	4.2
29	---						6.9	47	12	6.3	6.9	4.5
30	---						16	43	10	7.4	7.0	4.2
31	---						---	40	---	9.5	6.7	---
TOTAL	---						---	1456	562	231.4	262.4	145.5
MEAN	---						---	47.0	18.7	7.46	8.46	4.85
MAX	---						---	93	44	12	24	8.0
MIN	---						---	12	10	5.1	4.9	3.8
AC-FT	---						---	2890	1110	459	520	289

08253000 CASIAS CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'48", long 105°15'35", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft downstream from road crossing, 900 ft upstream from normal high-water line of Costilla Reservoir, 1.8 mi northeast of Costilla Dam, and 16 mi southeast of Costilla.

DRAINAGE AREA.--16.6 mi^2.

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Records for Nov. 1-7, 1947 and Nov. 1-16, 1948, published in WSP 1118 and 1148, are unreliable and should not be used.

REVISED RECORDS.--WSP 1282: 1948-51. WSP 1923: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,404 ft, from topographic map. Prior to July 18, 1940, water-stage recorder and wooden control 100 ft downstream at datum 1.56 ft lower.

REMARKS.--Records fair. Diversion 3.5 mi upstream for irrigation of about 1,300 acres, part of which is in Costilla Creek basin. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft^3/s July 20, 1971, gage height, 2.07 ft, from rating curve extended above 85 ft^3/s; minimum, not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 25	0200	*91	1.51	Aug. 2	2000	41	1.14

Minimum discharge, not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3						---	10	82	32	12	7.2
2	9.3						---	9.0	78	30	18	7.0
3	8.3						---	9.1	71	30	17	7.2
4	7.9						---	20	64	28	12	6.5
5	7.8						---	10	60	27	11	6.2
6	7.7						---	8.5	54	27	12	6.0
7	---						---	8.7	49	25	12	5.8
8	---						---	11	43	25	14	5.6
9	---						---	13	39	24	11	5.4
10	---						---	17	37	23	10	5.3
11	---						---	22	37	22	10	5.3
12	---						---	25	38	21	10	5.1
13	---						---	29	40	19	9.9	4.9
14	---						---	34	40	20	10	4.9
15	---						---	46	40	23	9.4	5.0
16	---						---	50	41	19	8.0	5.0
17	---						8.8	46	41	18	6.6	6.6
18	---						9.6	46	41	16	7.7	5.6
19	---						8.0	48	39	16	14	5.3
20	---						9.1	49	37	15	9.1	5.6
21	---						8.6	55	34	14	9.5	5.7
22	---						8.3	64	33	14	8.1	5.6
23	---						8.8	76	33	13	10	5.2
24	---						8.7	83	33	13	11	4.8
25	---						6.6	88	35	12	8.5	4.6
26	---						9.1	88	37	13	8.0	5.0
27	---						9.6	83	37	14	7.8	5.1
28	---						7.1	79	35	12	7.5	4.8
29	---						17	78	33	13	7.6	4.9
30	---						12	79	32	15	7.5	4.6
31	---						---	79	---	14	7.1	---
TOTAL	---						---	1363.3	1313	607	316.3	165.8
MEAN	---						---	44.0	43.8	19.6	10.2	5.53
MAX	---						---	88	82	32	18	7.2
MIN	---						---	8.5	32	12	6.6	4.6
AC-FT	---						---	2700	2600	1200	627	329

08253500 SANTISTEVAN CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'03", long 105°16'50", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft upstream from road crossing, 1,300 ft upstream from normal high-water line of Costilla Reservoir, 0.6 mi north of Costilla Dam, and 16 mi southeast of Costilla.

DRAINAGE AREA.--2.15 mi^2.

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 9,487 ft, from topographic map. Prior to June 27, 1940, water-stage recorder and wooden control at datum 0.99 ft lower.

REMARKS.--Records fair. No diversions above or below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft^3/s Aug. 11, 1941, July 12, 1957; maximum gage height, 1.73 ft Aug. 11, 1941; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6.0 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 1	1030	*12	1.15	July 30	1745	8.4	0.91
July 3	0145	7.0	0.80	Aug. 2	1745	9.7	1.00
July 26	2015	7.0	0.80				

Minimum discharge, not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3						---	.96	11	4.7	2.8	1.7
2	1.3						---	.89	10	4.5	3.4	1.6
3	1.3						---	.95	9.8	4.8	3.1	1.6
4	1.3						---	.95	9.2	4.4	2.8	1.5
5	1.3						---	1.1	8.9	4.3	2.7	1.5
6	1.3						---	1.0	8.5	4.2	2.9	1.5
7	---						---	1.0	7.9	4.1	2.9	1.5
8	---						---	1.2	7.4	4.0	2.8	1.4
9	---						---	1.3	6.9	3.9	2.5	1.4
10	---						---	1.6	6.4	3.8	2.4	1.4
11	---						---	2.1	6.0	3.8	2.3	1.4
12	---						---	2.6	5.8	3.7	2.3	1.3
13	---						---	2.8	5.7	3.6	2.3	1.3
14	---						---	3.1	5.8	3.8	2.3	1.3
15	---						---	3.5	5.6	3.8	2.2	1.3
16	---						---	4.2	5.6	3.7	2.2	1.3
17	---						1.2	4.1	5.7	3.7	2.1	1.6
18	---						1.0	4.1	6.0	3.5	2.1	1.4
19	---						1.1	4.2	6.2	3.3	2.3	1.3
20	---						1.0	4.6	5.9	3.1	2.1	1.3
21	---						1.0	5.9	5.7	3.1	2.3	1.4
22	---						.94	7.3	5.6	3.1	2.1	1.4
23	---						.83	8.5	5.6	3.0	2.2	1.3
24	---						1.0	9.5	5.7	3.0	2.1	1.3
25	---						.99	9.9	5.6	2.9	1.9	1.3
26	---						.83	10	5.5	3.3	1.9	1.4
27	---						.94	10	5.3	3.1	1.8	1.3
28	---						.89	10	5.2	2.9	1.8	1.3
29	---						.86	10	5.0	2.9	1.8	1.3
30	---						.89	10	4.9	3.4	1.8	1.3
31	---						---	10	---	2.9	1.7	---
TOTAL	---						---	147.35	198.4	112.3	71.9	41.9
MEAN	---						---	4.75	6.61	3.62	2.32	1.40
MAX	---						---	10	11	4.8	3.4	1.7
MIN	---						---	.89	4.9	2.9	1.7	1.3
AC-FT	---						---	292	394	223	143	83

08254000 COSTILLA CREEK BELOW COSTILLA DAM, NM

LOCATION.--Lat 36°52'26", long 105°16'47", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 125 ft downstream from Costilla Dam, 16 mi southeast of Costilla, and at mile 34.7.

DRAINAGE AREA.--54.6 mi^2.

PERIOD OF RECORD.--April 1937 to current year (no winter records 1937-44, 1947-49). Monthly discharge only for some periods, published in WSP 1312. Prior to October 1951, published as "below reservoir near Costilla."

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,290 ft, from topographic map.

REMARKS.--Records good except those below 1.0 ft^3/s, which are poor. Flow regulated by Costilla Reservoir (station 08253900). Diversions for irrigation of about 1,300 acres above Reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years (water years 1945-47, 1950-84), 17.6 ft^3/s, 12,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 301 ft^3/s June 19, 1979, gage height, 3.04 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 147 ft^3/s July 29, 30, gage height, 2.18 ft; minimum, not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.02	.02	.02	.02	16	28	94	55	144	15
2	.02	.02	.02	.02	.02	.02	16	27	94	76	143	30
3	.02	.02	.02	.02	.02	.02	16	25	103	76	67	80
4	.02	.02	.02	.02	.02	.02	16	23	116	76	26	80
5	.02	.02	.02	.02	.02	.02	16	23	116	76	60	80
6	.02	.02	.02	.02	.02	.02	16	23	117	55	145	69
7	.02	.02	.02	.02	.02	.02	16	23	118	41	134	32
8	.02	.02	.02	.02	.02	.02	16	23	112	57	105	14
9	.02	.02	.02	.02	.02	.02	16	23	86	104	105	30
10	.02	.02	.02	.02	.02	.02	16	23	63	104	54	75
11	.02	.02	.02	.02	.02	.02	16	23	74	103	21	75
12	.02	.02	.02	.02	.02	.02	48	23	111	103	45	74
13	.02	.02	.02	.02	.02	5.9	98	9.8	112	57	122	74
14	.02	.02	.02	.02	.02	12	98	.16	111	32	121	33
15	.02	.02	.02	.02	.02	6.5	98	.12	74	56	120	11
16	.02	.02	.02	.02	.02	6.9	98	.15	57	129	120	18
17	.02	.02	.02	.02	.02	7.0	98	.16	78	129	48	33
18	.02	.02	.02	.02	.02	7.0	99	.20	134	129	17	33
19	.02	.02	.02	.02	.02	6.9	98	.21	134	129	35	35
20	.02	.02	.02	.02	.02	7.0	97	.18	133	66	81	35
21	.02	.02	.02	.02	.02	7.3	97	.20	127	30	81	19
22	.02	.02	.02	.02	.02	7.3	97	.21	73	56	79	11
23	.02	.02	.02	.02	.02	7.7	97	.25	51	134	80	21
24	.02	.02	.02	.02	.02	7.9	96	.26	67	134	49	46
25	.02	.02	.02	.02	.02	7.7	96	12	119	133	33	46
26	.02	.02	.02	.02	.02	12	95	36	119	133	42	46
27	.02	.02	.02	.02	.02	15	95	46	119	62	64	46
28	.02	.02	.02	.02	.02	15	93	47	119	23	63	19
29	.02	.02	.02	.02	.02	15	56	47	73	48	63	.03
30	.02	.02	.02	.02	---	15	28	73	48	145	63	.03
31	.02	---	.02	.02	---	15	---	93	---	144	31	---
TOTAL	.62	.60	.62	.62	.58	184.34	1858	652.90	2952	2695	2361	1180.06
MEAN	.020	.020	.020	.020	.020	5.95	61.9	21.1	98.4	86.9	76.2	39.3
MAX	.02	.02	.02	.02	.02	15	99	93	134	145	145	80
MIN	.02	.02	.02	.02	.02	.02	16	.12	48	23	17	.03
AC-FT	1.2	1.2	1.2	1.2	1.2	366	3690	1300	5860	5350	4680	2340

CAL YR 1983 TOTAL 13592.68 MEAN 37.2 MAX 212 MIN .02 AC-FT 26960
WTR YR 1984 TOTAL 11886.34 MEAN 32.5 MAX 145 MIN .02 AC-FT 23580

08255500 COSTILLA CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°58'01", long 105°30'23", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 70 ft downstream from bridge on State Highway 196, 0.5 mi upstream from diversion dam, 1.6 mi southeast of Costilla, and at mile 15.9.

DRAINAGE AREA.--195 mi^2.

PERIOD OF RECORD.--March 1936 to current year (no winter records 1936-41, 1943). Monthly discharge for March 1943 and water-year estimate for 1943, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1937-39(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1952. Altitude of gage is 7,900 ft from topographic map. Prior to June 18, 1944, at site 200 ft downstream at different datum. June 18, 1944 to Sept. 30, 1964, at site 0.4 mi upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Costilla Reservoir (station 08253900) 19 mi upstream. Diversions for irrigation of about 2,000 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years (water years 1942-84), 42.8 ft^3/s, 31,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,150 ft^3/s May 11, 1942, gage height, 5.37 ft, site and datum then in use; minimum, 0.34 ft^3/s Mar. 15, 1969, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 303 ft^3/s May 16, gage height, 3.66 ft; minimum, 5.5 ft^3/s Nov. 24, but may have been less during period of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	15	9.0	8.0	8.0	13	33	98	224	81	149	33
2	21	15	10	8.0	8.5	14	32	98	224	101	162	30
3	18	14	10	7.0	8.0	15	32	98	208	107	133	75
4	17	14	11	7.5	8.5	15	33	106	217	102	58	86
5	16	14	10	8.5	9.0	16	36	120	210	98	52	84
6	15	14	8.0	9.0	9.0	17	38	116	206	91	143	79
7	14	14	8.5	9.0	8.5	18	41	117	193	70	170	60
8	14	15	9.0	9.0	9.0	18	41	119	178	65	128	22
9	17	14	9.5	8.5	9.0	19	45	136	161	109	120	21
10	16	13	10	9.0	9.5	19	45	162	128	112	100	65
11	14	16	10	8.0	12	18	48	189	114	109	46	77
12	14	16	10	8.5	10	19	51	214	149	113	43	78
13	14	15	9.5	9.0	11	19	122	222	148	96	117	78
14	15	14	8.5	9.0	11	25	129	210	148	55	133	67
15	16	10	9.0	8.5	12	30	134	213	135	59	137	25
16	15	13	8.0	8.0	11	29	140	264	105	123	132	22
17	15	14	9.0	8.5	12	27	157	267	100	137	102	48
18	15	16	8.0	7.0	12	26	176	248	160	133	41	46
19	14	14	8.5	6.0	11	26	188	232	169	134	46	45
20	14	13	9.0	7.0	10	26	182	231	166	112	91	46
21	14	18	8.5	6.5	11	30	157	242	162	53	102	43
22	14	14	8.0	7.0	12	32	150	254	126	49	99	22
23	14	11	8.5	7.0	11	26	152	269	88	119	99	20
24	14	10	8.5	7.0	10	28	164	271	86	131	91	46
25	14	11	8.0	8.0	11	31	174	257	137	133	56	53
26	13	10	8.5	8.5	11	27	166	258	146	134	51	55
27	13	9.0	9.0	9.0	12	32	152	255	146	111	71	56
28	14	8.0	8.0	9.0	12	32	150	233	146	49	73	51
29	14	9.0	7.0	9.0	12	31	135	215	126	48	74	19
30	14	9.0	7.0	9.0	---	31	89	207	85	133	75	14
31	15	---	7.5	8.5	---	31	---	224	---	151	65	---
TOTAL	470	392.0	273.0	251.5	301.0	740	3192	6145	4591	3118	2959	1466
MEAN	15.2	13.1	8.81	8.11	10.4	23.9	106	198	153	101	95.5	48.9
MAX	23	18	11	9.0	12	32	188	271	224	151	170	86
MIN	13	8.0	7.0	6.0	8.0	13	32	98	85	48	41	14
AC-FT	932	778	541	499	597	1470	6330	12190	9110	6180	5870	2910

CAL YR 1983 TOTAL 31734.0 MEAN 86.9 MAX 571 MIN 6.0 AC-FT 62940
WTR YR 1984 TOTAL 23898.5 MEAN 65.3 MAX 271 MIN 6.0 AC-FT 47400

08260500 COSTILLA CREEK BELOW DIVERSION DAM, AT COSTILLA, NM

LOCATION.--Lat 36°58'03", long 105°31'00", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 600 ft downstream from new diversion dam, 1.1 mi southeast of Costilla, and at mile 15.3.

DRAINAGE AREA.--197 mi^2.

PERIOD OF RECORD.--April 1952 to current year (no winter records).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,861 ft, from topographic map.

REMARKS.--Records poor. Flow partly regulated by Costilla Reservoir (station 08253900) 20 mi upstream, and by canal headgates or sluice gates at diversion dam. Diversions above station for irrigation of about 5,000 acres, 3,000 acres of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 540 ft^3/s June 9, 1979, gage height, 4.66 ft, from rating curve extended above 220 ft^3/s; maximum gage height, 6.77 ft May 30, 1983 (backwater from debris); no flow Oct. 14, 1963, Aug. 6, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably exceeded 1,000 ft^3/s, based on records for upstream station (station 08255500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 234 ft^3/s June 8, gage height, 4.85 ft; minimum daily, 0.50 ft^3/s several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1						---	74	98	9.0	1.0	.98
2	6.9						---	74	74	9.0	3.0	.50
3	6.8						---	73	65	12	5.0	.50
4	1.8						---	80	58	9.5	1.0	1.0
5	---						---	93	46	8.5	3.0	5.5
6	---						---	89	44	8.5	3.0	6.0
7	---						---	92	38	12	25	4.0
8	---						---	90	64	11	2.0	2.0
9	---						---	89	65	9.0	1.0	1.0
10	---						---	110	61	2.8	7.0	3.5
11	---						---	135	33	2.4	1.0	2.0
12	---						---	167	17	5.4	.50	1.5
13	---						---	176	13	6.0	1.0	2.5
14	---						---	160	12	3.0	1.0	3.5
15	---						---	141	19	3.0	2.0	1.0
16	---						---	162	10	4.0	1.0	1.0
17	---						---	184	7.0	3.0	.50	3.5
18	---						164	168	4.0	2.5	1.0	4.0
19	---						170	154	2.0	2.0	1.0	3.0
20	---						164	155	2.0	4.0	1.0	3.0
21	---						140	133	1.0	9.0	3.0	4.0
22	---						134	120	13	6.0	1.5	1.0
23	---						135	137	6.0	4.0	2.0	1.5
24	---						148	147	9.0	2.1	10	5.0
25	---						161	138	1.0	2.0	3.5	4.0
26	---						154	127	6.0	1.1	3.0	7.0
27	---						140	133	14	8.0	1.5	7.0
28	---						139	90	22	14	1.0	10
29	---						124	60	18	13	.50	2.0
30	---						76	57	9.0	8.0	.50	1.5
31	---						---	68	---	6.0	.50	---
TOTAL	---						---	3676	831.0	199.8	88.00	92.98
MEAN	---						---	119	27.7	6.45	2.84	3.10
MAX	---						---	184	98	14	25	10
MIN	---						---	57	1.0	1.1	.50	.50
AC-FT	---						---	7290	1650	396	175	184

08261000 COSTILLA CREEK AT GARCIA, CO

LOCATION.--Lat 36°59'21", long 105°31'54", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 0.4 mi downstream from old State Highway 3, 0.5 mi upstream from New Mexico-Colorado State line, 0.9 mi south of Garcia, and at mile 13.3.

DRAINAGE AREA.--200 mi^2, approximately.

PERIOD OF RECORD.--June 1944 to current year (no winter records).

GAGE.--Water-stage recorder. Concrete control since Oct. 9, 1956. Altitude of gage is 7,758 ft, from topographic map. Prior to Apr. 20, 1950, at site 0.4 mi downstream at different datum.

REMARKS.--Records fair. Flow partly regulated by Costilla Reservoir (station 08253900) 22 mi upstream. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 500 ft^3/s June 1, 1983, gage height, 4.91 ft; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 215 ft^3/s April 20, gage height, 4.04 ft; no flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5						---	66	89	6.5	.78	.00
2	3.5						---	68	69	8.4	4.3	.00
3	4.5						---	67	62	12	5.3	.00
4	.31						---	72	58	9.3	.53	1.0
5	.12						---	92	49	8.3	.40	5.4
6	.07						---	85	48	7.8	2.7	5.9
7	---						---	88	42	8.8	26	3.9
8	---						---	89	65	8.7	2.7	1.9
9	---						---	89	61	6.6	.87	.98
10	---						---	116	57	2.1	6.6	3.3
11	---						---	143	31	2.2	.58	1.5
12	---						---	177	16	2.1	.20	1.6
13	---						---	186	13	5.2	.43	2.3
14	---						---	164	12	.81	.93	3.1
15	---						---	141	19	.61	2.0	.57
16	---						---	164	5.6	3.0	.27	.56
17	---						---	173	2.6	.84	.00	3.6
18	---						166	154	3.1	.18	.00	4.6
19	---						163	146	3.9	.08	.00	4.6
20	---						153	140	3.9	.50	.00	5.2
21	---						130	123	3.3	2.0	2.9	5.7
22	---						118	108	16	2.0	1.4	1.8
23	---						140	114	2.1	3.9	1.9	1.5
24	---						148	130	4.1	.93	9.8	7.7
25	---						161	126	3.4	.53	3.2	8.0
26	---						146	121	7.2	.36	2.7	9.9
27	---						142	120	15	8.5	1.4	11
28	---						143	79	28	7.7	.00	16
29	---						128	55	23	5.9	.00	3.2
30	---						67	51	8.2	3.2	.00	1.8
31	---						---	59	---	2.0	.00	---
TOTAL	---						---	3506	820.4	131.04	77.89	116.61
MEAN	---						---	113	27.3	4.23	2.51	3.89
MAX	---						---	186	89	12	26	16
MIN	---						---	51	2.1	.08	.00	.00
AC-FT	---						---	6950	1630	260	154	231

BEST COPY AVAILABLE

PRINCIPAL DIVERSIONS FROM COSTILLA CREEK, NEW MEXICO-COLORADO

Records of discharge are collected at 5 gaging stations on 3 diversions from Costilla Creek. Water diverted is used for irrigation in the Sangre de Cristo Grant in New Mexico and Colorado below the gaging station on Costilla Creek near Costilla, NM (station 08255500). Records collected during irrigation season only. Several observations of water temperature were made at each site during the year.

08256000 ACEQUIA MADRE AT COSTILLA, NM.--Lat 36°58'03", long 105°30'57", Taos County, Hydrologic Unit 13020101, on right bank 135 ft downstream from new diversion dam, and 1.2 mi southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft, from topographic map. Acequia diverts from right bank of Costilla Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50 ft^3/s June 25, 1944, July 31, 1945; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 41 ft^3/s May 22; no flow at times.

08258000 CERRO CANAL AT COSTILLA, NM.--Lat 36°57'56", long 105°31'07", Taos County, Hydrologic Unit 13020101, on right bank 1,350 ft downstream from new diversion dam, and 1.2 mi southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, April 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft, from topographic map. Canal diverts from left bank of Costilla Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 151 ft^3/s June 19, 1984; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 151 ft^3/s June 19; minimum daily 8.0 ft^3/s Sept. 9.

08258600 CERRO CANAL BELOW ASSOCIATION DITCH AT COSTILLA, NM.--Lat 36°57'41", long 105°32'05", Taos County, Hydrologic Unit 13020101, on left bank 220 ft downstream from Association ditch, and 1.2 mi south of the intersection of State Highway 3 and 196 at Costilla. PERIOD OF RECORD, May 1972 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,820 ft, from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 81 ft^3/s July 18, 19, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 68 ft^3/s June 6; minimum daily 3.3 ft^3/s Oct. 3.

08259600 CERRO CANAL AT STATE LINE NEAR JAROSO, CO.--Lat 36°59'41", long 105°34'36", Taos County, Hydrologic Unit 13020101, on right bank 780 ft downstream from head of N. Mex. branch Cerro Canal, and 2.7 mi east of Jaroso. PERIOD OF RECORD, April 1973 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft, from topographic map. Flow measured is delivered to Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 68 ft^3/s July 18, 19 , 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 56 ft^3/s June 6; minimum daily, 2.2 ft^3/s Oct. 3.

08262000 EASTDALE NO. 1 INTAKE CANAL NEAR JAROSO, CO.--Lat 37°02'25", long 105°36'18", Costilla County, Hydrologic Unit 13020101, on left bank 750 ft downstream from headgate, and 2.8 mi north of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,580 ft, from topographic map. Canal diverts from right bank of Costilla Creek to Eastdale Reservoir No. 1 for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 112 ft May 16, 1958; no flow for long periods.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 71 ft^3/s May 27; no flow many days.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

	08256000 Acequia Madre	08258000 Cerro Canal at Costilla	08258600 Cerro Canal below Association ditch	08259600 Cerro Canal at State line nr Jaroso	08262000 Eastdale No. 1 intake canal
October	-	-	-	-	23
November	-	-	-	-	0
December	-	-	-	-	-
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	291
April	-	-	-	-	431
May	1030	3870	2140	1650	1150
June	1130	6330	2740	2180	657
July	936	4820	2120	1600	29
August	990	4720	2180	1620	120
September	753	1990	1520	1080	105

08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NW¼NE¼ sec.20, T.29 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi southwest of Cerro, 5.5 mi northwest of Questa, 7.4 mi upstream from Red River, and at mile 1,693.1.

DRAINAGE AREA.--8,440 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1948 to current year.

REVISED RECORDS.--WDR NM-80-1: 1978(M).

GAGE.--Water-stage recorder. Altitude of gage is 7,110 ft, from topographic map.

REMARKS.--Water-discharge records good except those for August and September, which are fair. Diversions above station for irrigation of about 620,000 acres in Colorado and 7,000 acres in New Mexico.

AVERAGE DISCHARGE.--36 years, 408 ft^3/s, 295,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft^3/s June 22, 1949, gage height, 15.78 ft; minimum, about 40 ft^3/s Sept. 10, 11, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 26	0400	1160	6.69	May 31	1730	*3260	10.27
Apr. 21	1430	1580	7.69	June 18	2230	1230	6.76

Minimum daily discharge, 68 ft^3/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	114	187	310	297	335	786	977	3140	789	200	215
2	70	119	213	296	295	328	796	962	2890	713	210	183
3	69	130	227	303	297	320	787	865	2740	662	225	157
4	69	134	241	306	295	327	735	776	2450	645	200	145
5	138	132	271	302	297	350	725	803	2090	584	188	165
6	119	132	300	295	301	312	709	920	1750	515	180	170
7	102	131	309	303	299	356	701	1080	1540	443	178	182
8	101	128	301	316	299	370	743	1140	1300	416	172	182
9	104	125	285	326	303	359	777	1160	1150	435	262	184
10	99	127	289	321	307	367	791	1200	1010	408	274	181
11	89	128	299	324	312	372	825	1350	905	460	208	164
12	81	128	320	320	316	388	862	1600	840	494	212	165
13	86	135	331	319	317	406	870	1750	786	508	229	153
14	87	137	333	319	322	438	914	2000	898	434	151	140
15	84	136	321	320	330	486	945	2220	912	404	189	134
16	87	132	305	306	316	614	1010	2470	1070	380	142	138
17	98	138	282	315	335	673	1090	2640	1160	378	126	144
18	94	138	292	310	332	741	1210	2590	1210	387	120	136
19	92	145	286	308	354	765	1200	2350	1210	420	148	133
20	89	111	298	304	344	767	1330	2070	1080	386	139	157
21	92	161	319	298	345	823	1540	1910	962	356	154	159
22	93	166	327	289	340	928	1530	1830	978	330	207	157
23	87	122	327	276	335	927	1460	2100	1070	322	250	149
24	84	137	328	274	335	912	1350	2590	1160	290	302	144
25	84	120	319	277	328	1130	1340	2760	1100	278	286	141
26	84	125	336	273	334	1070	1360	2910	1000	265	321	134
27	87	121	359	277	338	981	1230	3030	1070	250	319	130
28	86	114	374	282	325	884	1100	2990	1090	235	355	123
29	85	113	308	285	331	848	1020	2990	1060	225	316	120
30	92	158	340	287	---	815	981	3110	943	215	281	115
31	101	---	319	295	---	802	---	3160	---	210	247	---
TOTAL	2801	3937	9346	9336	9279	19194	30717	60303	40564	12837	6791	4600
MEAN	90.4	131	301	301	320	619	1024	1945	1352	414	219	153
MAX	138	166	374	326	354	1130	1540	3160	3140	789	355	215
MIN	68	111	187	273	295	312	701	776	786	210	120	115
AC-FT	5560	7810	18540	18520	18400	38070	60930	119600	80460	25460	13470	9120

CAL YR 1983 TOTAL 206719 MEAN 566 MAX 2810 MIN 65 AC-FT 410000
WTR YR 1984 TOTAL 209705 MEAN 573 MAX 3160 MIN 68 AC-FT 415900

08263500 RIO GRANDE NEAR CERRO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 04...	1345	137	365	8.2	--	118	2.4	--
JAN 11...	1545	316	195	7.5	.0	74	1.8	--
MAY 26...	1415	2970	160	7.2	15.0	44	7.9	<.01
JUN 28...	1800	1090	248	7.8	20.0	66	6.3	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 04...	1345	0	3	17	13	9	3	30	5
JAN 11...	1545	0	2	27	--	1	<1	30	21
MAY 26...	1415	0	11	110	37	1	<1	40	27
JUN 28...	1800	0	5	84	9	1	1	30	18

08265000 RED RIVER NEAR QUESTA, NM

LOCATION.--Lat 36°42'12", long 105°34'04", in NE¼SE¼ sec.32, T.29 N., R.13 E. (projected), Taos County, Hydrologic Unit 13020101, in Carson National Forest, on left bank 1.3 mi upstream from Cabresto Creek, 1.5 mi east of Questa, and at mile 9.0.

DRAINAGE AREA.--113 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to October 1910 and January to September 1911 (gage heights and discharge measurements only), October 1912 to March 1924, May 1924 to September 1925, January to March 1926, September 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as Rio Colorado above Questa 1910-11, 1926-30, and as Rio Colorado near Questa 1912-25, 1930-48.

REVISED RECORDS.--WSP 808: 1935. WSP 1392: 1913, 1932, 1941, 1947-48. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Oct. 4, 1938.

REMARKS.--Water-discharge records good except those for winter period and those for May and June, which are poor. Diversions for irrigation of a few hundred acres above station. Figures of discharge do not include flow in South ditch which diverts from left bank 1,500 ft upstream and bypasses gage for irrigation and stock water below.

Since January 1966 surface and ground water diversions by Molybdenum Corp. of America (Molycorp) refinery 5.5 mi upstream bypass gage in tailings pipelines on left bank and discharge into settling pond 3 mi downstream. Effluent from this pond enters Red River as surface water and is included in discharge at Red River below Fish Hatchery, near Questa (station 08266820). See tabulation below for bypass flow of water.

AVERAGE DISCHARGE.--52 years (water years 1913-25, 1927-65), 55.9 ft^3/s, 40,500 acre-ft/yr, prior to extensive upstream diversions by Molycorp.

19 years (water years 1966-84), 36.3 ft^3/s, 26,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1929).--Maximum discharge, 886 ft^3/s May 25, 1942, from rating curve extended above 450 ft^3/s: maximum gage height, 5.80 ft June 8, 1979; minimum discharge, 0.60 ft^3/s Jan. 21, 1981, result of freezeup.

The maximum discharge of May 25, 1942, may have been equalled or exceeded by the peak of June 15, 1921.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 388 ft^3/s at 0115 hours May 25, no other peak above base of 160 ft^3/s; minimum, 3.2 ft^3/s Nov. 28, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	16	7.8	14	11	10	12	46	250	84	38	36
2	35	18	11	12	11	10	12	52	259	80	53	34
3	32	17	14	9.7	12	10	10	55	228	77	44	33
4	31	18	15	11	12	8.8	12	67	203	77	45	31
5	29	18	11	11	12	8.0	14	75	196	76	52	28
6	28	17	5.9	10	12	10	15	88	184	77	46	24
7	26	17	7.6	10	11	13	20	95	163	73	54	23
8	25	17	11	9.0	11	11	20	98	144	69	47	22
9	26	16	12	8.0	11	10	21	114	137	67	43	22
10	24	15	14	7.0	11	10	20	136	133	66	39	22
11	23	16	15	7.0	10	10	22	169	130	63	35	22
12	22	17	15	9.0	10	9.7	21	186	129	60	34	22
13	21	18	14	10	10	10	24	183	129	53	35	22
14	22	17	12	10	10	11	25	198	128	47	36	24
15	23	14	10	9.0	9.8	13	28	219	129	48	38	25
16	23	15	8.7	10	9.7	14	29	270	130	51	39	25
17	22	15	11	9.6	9.8	13	37	268	130	47	37	27
18	22	15	14	8.8	11	12	52	236	131	46	35	24
19	21	15	15	8.0	11	11	61	227	132	45	39	22
20	21	14	16	8.4	11	11	65	231	122	42	44	22
21	21	15	11	8.8	12	13	51	262	117	41	48	23
22	20	14	11	9.6	12	14	48	283	113	41	44	22
23	19	12	13	10	12	13	45	315	108	39	42	20
24	19	6.4	13	10	11	12	50	372	105	38	43	20
25	19	8.5	16	11	10	14	64	377	105	37	35	20
26	18	8.6	16	11	9.7	15	64	342	101	36	35	22
27	18	7.1	16	10	9.2	13	52	317	97	35	33	22
28	17	5.3	14	10	9.3	12	52	303	92	37	36	22
29	17	6.6	6.8	11	11	12	50	292	89	42	34	22
30	16	6.9	6.4	11	---	12	43	273	84	42	39	23
31	17	---	9.8	11	---	11	---	256	---	41	39	---
TOTAL	711	415.4	373.0	304.9	312.5	356.5	1039	6405	4198	1677	1261	726
MEAN	22.9	13.8	12.0	9.84	10.8	11.5	34.6	207	140	54.1	40.7	24.2
MAX	35	18	16	14	12	15	65	377	259	84	54	36
MIN	16	5.3	5.9	7.0	9.2	8.0	10	46	84	35	33	20
AC-FT	1410	824	740	605	620	707	2060	12700	8330	3330	2500	1440

CAL YR 1983 TOTAL 24872.4 MEAN 68.1 MAX 332 MIN 5.3 AC-FT 49330
WTR YR 1984 TOTAL 17779.3 MEAN 48.6 MAX 377 MIN 5.3 AC-FT 35270

08265000 RED RIVER NEAR QUESTA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV										
04...	1115	14	290	7.2	--	--	9.8	48	1.0	--
JAN										
10...	1430	9.1	345	7.3	--	.0	12.8	28	.70	<.01
APR										
05...	1000	13	320	7.0	14.0	6.0	11.3	28	.80	--
MAY										
25...	1445	351	132	7.0	--	11.0	--	33	--	<.01
JUN										
28...	1500	95	180	7.1	--	12.0	--	48	1.0	<.01
SEP										
27...	1330	18	310	7.0	--	13.0	8.2	39	.70	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
04...	1115	0	27	11	620	12	6	200	90
JAN									
10...	1430	1	48	10	--	8	9	310	230
APR									
05...	1000	2	49	56	1400	6	6	330	250
MAY									
25...	1445	0	80	45	150	13	2	170	41
JUN									
28...	1500	0	16	12	270	5	4	90	47
SEP									
27...	1330	0	31	19	840	5	4	200	100

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JAN					
10...	1430	9.1	.0	44	1.1
APR					
05...	1000	13	6.0	67	2.4
MAY					
25...	1445	351	11.0	1210	1150
JUN					
28...	1500	95	12.0	19	4.9
SEP					
27...	1330	18	13.0	28	1.4

08266000 CABRESTO CREEK NEAR QUESTA, NM

LOCATION.--Lat 36°43'50", long 105°33'12", in SE¼SE¼ sec.21, T.29 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 900 ft downstream from Llano ditch heading, 2.6 mi downstream from Lake Fork, 3 mi northeast of Questa, and at mile 3.5.

DRAINAGE AREA.--36.7 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1943 to current year.

REVISED RECORDS.--WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,845 ft, from river-profile map.

REMARKS.--Water-discharge records good. Llano ditch (station 08265500), the only diversion above station, diverts from right bank 900 ft above gage for irrigation of about 800 acres below. See tabulation below for monthly diversion of Llano ditch (records of daily discharge available in District files). Flow regulated by Cabresto Reservoir (capacity, 732 acre-feet, after reconstruction in 1928) on Lake Fork 1 mi above mouth. Present capacity of Cabresto Reservoir is 1,100 acre-feet after further rehabilitation between 1959 and 1961.

AVERAGE DISCHARGE.--41 years, 10.1 ft^3/s, 7,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 204 ft^3/s June 2, 1983, gage height, 4.82 ft; minimum, 0.44 ft^3/s Dec. 2, 1950, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 25, 1942, may have exceeded the maximum of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 171 ft^3/s May 24, gage height, 4.50 ft; minimum, 1.6 ft^3/s Dec. 29, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.5	7.3	7.6	6.0	5.5	7.0	9.6	63	13	14	9.6
2	9.3	7.7	7.4	6.9	6.0	5.5	6.5	9.9	58	13	15	9.4
3	9.3	7.7	7.4	4.6	6.0	5.5	6.2	10	48	13	15	9.2
4	10	7.7	7.3	6.3	6.0	5.3	6.5	14	39	13	14	9.0
5	9.9	7.6	7.2	7.3	5.9	4.9	8.2	16	35	13	14	8.7
6	9.7	7.6	4.6	7.2	5.9	5.4	8.0	18	32	13	14	8.4
7	9.5	7.6	6.3	7.0	5.8	5.3	8.5	20	28	13	15	8.2
8	9.7	7.9	7.5	6.9	5.8	5.5	8.5	29	26	13	14	7.9
9	10	8.0	7.4	6.8	5.7	5.5	9.1	37	24	13	13	7.8
10	9.6	7.9	7.1	6.5	5.8	5.5	8.8	49	18	13	13	7.8
11	9.5	4.5	6.9	6.5	5.8	5.5	9.0	67	16	13	12	7.7
12	9.6	6.2	6.9	6.7	5.4	5.5	8.4	90	18	15	12	7.7
13	9.4	8.3	6.8	6.7	5.8	5.4	9.1	97	17	14	12	7.6
14	9.6	8.2	6.9	6.7	5.8	5.5	9.0	106	16	13	12	7.5
15	9.6	8.1	6.5	6.6	5.9	5.6	9.7	115	16	13	12	7.7
16	9.6	8.0	6.2	6.3	5.6	5.6	11	115	15	13	12	7.6
17	9.4	8.0	6.8	6.2	5.9	5.5	14	109	15	13	11	8.0
18	9.2	8.4	6.7	4.8	5.8	6.0	18	111	13	13	11	7.7
19	8.8	8.3	6.7	4.6	5.5	5.9	20	108	14	13	11	7.4
20	8.8	7.7	6.8	5.2	4.9	5.8	20	117	13	13	11	7.2
21	8.9	6.9	6.6	5.1	5.6	6.4	16	124	13	13	11	7.3
22	8.7	6.4	6.6	5.7	5.6	7.1	14	140	13	13	11	7.4
23	8.6	5.7	6.8	6.1	5.6	6.8	13	147	13	13	11	7.2
24	8.5	4.0	6.8	6.5	5.2	6.7	15	145	13	12	12	7.0
25	8.4	6.5	6.8	6.4	5.6	7.2	17	146	14	12	11	6.9
26	7.3	6.8	6.8	6.1	5.5	6.6	17	134	13	12	11	7.3
27	7.5	6.6	6.8	5.8	5.3	7.1	15	119	13	12	10	7.3
28	7.4	5.1	5.9	5.8	5.1	6.6	13	109	13	12	9.9	7.1
29	7.5	5.8	2.7	5.9	5.5	6.8	11	103	13	12	9.9	7.1
30	7.7	7.0	3.4	5.9	---	6.9	10	82	13	13	10	7.1
31	7.5	---	5.4	5.9	---	6.5	---	72	---	12	9.9	---
TOTAL	278.5	213.7	201.3	192.6	164.3	184.9	346.5	2568.5	655	399	373.7	233.8
MEAN	8.98	7.12	6.49	6.21	5.67	5.96	11.6	82.9	21.8	12.9	12.1	7.79
MAX	10	8.4	7.5	7.6	6.0	7.2	20	147	63	15	15	9.6
MIN	7.3	4.0	2.7	4.6	4.9	4.9	6.2	9.6	13	12	9.9	6.9
AC-FT	552	424	399	382	326	367	687	5090	1300	791	741	464
(†)	9.6	---	---	---	---	---	---	---	1070	708	0	0

CAL YR 1983 TOTAL 7382.7 MEAN 20.2 MAX 170 MIN 2.7 AC-FT 14640
WTR YR 1984 TOTAL 5811.8 MEAN 15.9 MAX 147 MIN 2.7 AC-FT 11530

(†) DIVERSION, IN ACRE-FEET, BY LLANO DITCH

BEST COPY AVAILABLE

08266500 RED RIVER BELOW QUESTA, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°41'34", long 105°36'42", SW¼NE¼ sec. 1, T. 28N., R. 12E., Taos County, Hydrologic Unit 13020101, at bridge on State Highway 3, 1.3 mi southwest of Questa.

DRAINAGE AREA.--160 mi^2.

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV									
03...	1500	E25	300	7.7	--	8.6	52	1.4	<.01
JAN									
10...	1245	19	290	7.5	.5	10.9	48	.90	--
MAY									
25...	1430	E530	125	7.0	10.0	--	33	--	--
JUN									
28...	1345	84	205	7.5	13.0	--	46	1.3	--
SEP									
27...	1250	E23	320	7.0	13.0	8.0	46	1.7	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
03...	1500	0	26	6	550	14	8	140	54
JAN									
10...	1245	1	32	40	--	6	7	150	110
MAY									
25...	1430	0	65	67	94	15	2	120	40
JUN									
28...	1345	0	13	10	240	4	4	60	44
SEP									
27...	1250	0	25	5	620	10	7	320	64

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)
MAY				
25...	1430	E530	10.0	1330
SEP				
27...	1250	E23	13.0	69

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°41'12" long 105°38'40", in SE¼SE¼ sec. 3, T.28N., R.12E., Taos County, Hydrologic Unit 130020101, 0.5 mi upstream from Red River State Fish Hatchery and 3.0 mi southwest of Questa.

DRAINAGE AREA.--175 mi^2.

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 03...	1315	30	365	7.9	9.0	8.8	75	1.3	<.01
JAN 10...	1045	E17	370	7.9	2.0	9.9	53	.70	<.01
MAY 24...	1345	E541	130	7.2	--	--	--	--	--
JUN 27...	1515	89	234	7.4	13.0	9.8	54	1.4	--
SEP 27...	1030	E40	370	7.1	10.0	9.2	56	.80	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 03...	1315	0	17	6	370	65	92	140	32
JAN 10...	1045	0	16	7	380	87	110	80	47
MAY 24...	1345	0	84	56	85	25	7	180	9
JUN 27...	1515	0	11	7	200	26	27	70	21
SEP 27...	1030	0	19	8	510	82	77	110	36

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)
SEP 27...	1030	E40	10.0	51

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

LOCATION.--Lat 36°40'54", long 105°39'21", in NW¼NW¼ sec.10, T.28 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 0.3 mi downstream from State Fish Hatchery, 3.5 mi upstream from mouth, and 3.7 mi southwest of Questa.

DRAINAGE AREA.--185 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1969 to July 1978 (discharge measurements only), August 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,070 ft, from topographic map. Prior to Aug. 16, 1979, at site about 250 ft upstream at datum 5.55 ft higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 3,000 acres above station.

AVERAGE DISCHARGE.--6 years, 86.1 ft^3/s, 62,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 755 ft^3/s June 8, 1979, gage height, 5.30 ft, site and datum then in use; minimum, 24 ft^3/s Feb. 7, 1982, and Jan. 19, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 617 ft^3/s at 2400 hours May 24, gage height, 4.35 ft, no other peak above base of 165 ft^3/s; minimum, 24 ft^3/s Jan. 19, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	47	35	34	36	44	48	98	363	99	62	58
2	61	48	39	36	38	44	46	105	363	97	72	57
3	60	48	43	36	39	43	47	107	352	96	65	58
4	59	49	44	36	41	40	49	125	330	95	67	57
5	58	48	41	38	42	40	50	133	300	95	74	54
6	57	47	34	40	42	39	47	144	270	94	72	48
7	57	47	35	40	42	39	50	146	240	93	78	46
8	55	46	38	41	41	40	51	151	220	88	68	45
9	58	47	40	46	40	42	52	168	190	85	60	44
10	55	45	42	39	40	45	49	200	180	83	58	43
11	54	45	44	35	39	47	51	237	175	81	55	43
12	52	45	45	34	38	45	50	287	170	79	56	43
13	51	47	43	34	38	45	54	314	168	75	61	43
14	52	47	41	34	37	47	53	338	160	70	58	43
15	52	45	38	34	38	49	56	366	158	68	62	45
16	52	43	37	32	38	49	57	395	155	74	61	46
17	52	43	39	31	38	47	67	383	152	74	59	47
18	51	42	43	29	39	47	87	372	150	72	58	47
19	50	44	43	26	40	46	111	360	150	71	66	50
20	51	44	44	27	40	47	117	376	148	63	70	48
21	52	44	41	29	40	49	101	399	139	62	75	50
22	50	45	38	31	41	52	98	445	137	62	68	49
23	50	43	41	32	41	50	94	513	128	61	69	44
24	50	38	41	33	42	47	98	564	119	59	69	43
25	50	37	43	35	45	51	113	566	118	59	62	44
26	49	39	44	36	42	53	118	529	116	57	60	49
27	48	37	45	35	41	51	115	489	112	56	58	50
28	48	34	44	34	41	50	116	444	107	58	60	49
29	48	33	36	34	44	49	110	424	104	62	58	49
30	47	34	33	33	---	51	98	407	100	63	62	50
31	48	---	33	34	---	49	---	384	---	63	62	---
TOTAL	1637	1301	1247	1068	1163	1437	2253	9969	5574	2314	1985	1442
MEAN	52.8	43.4	40.2	34.5	40.1	46.4	75.1	322	186	74.6	64.0	48.1
MAX	61	49	45	46	45	53	118	566	363	99	78	58
MIN	47	33	33	26	36	39	46	98	100	56	55	43
AC-FT	3250	2580	2470	2120	2310	2850	4470	19770	11060	4590	3940	2860

CAL YR 1983 TOTAL 40643 MEAN 111 MAX 563 MIN 33 AC-FT 80620
WTR YR 1984 TOTAL 31390 MEAN 85.8 MAX 566 MIN 26 AC-FT 62260

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Replaces station 08266800 Red River at Fish Hatchery near Questa, NM. Samples collected at this location (08266820) since July 1974, but published under 08266800 until 1978 calendar year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV									
03...	1415	48	335	8.0	11.5	8.4	77	1.5	<.01
JAN									
10...	1200	35	340	8.2	6.5	8.9	74	1.2	<.01
APR									
04...	1615	55	460	7.7	12.0	8.7	77	2.6	.01
MAY									
24...	1330	559	130	7.6	9.0	7.9	36	--	<.01
JUN									
27...	1600	107	238	7.5	14.0	9.3	56	1.3	<.01
SEP									
27...	1130	58	348	7.4	13.0	8.6	67	.70	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
03...	1415	0	13	8	230	48	62	70	14
JAN									
10...	1200	0	11	6	230	58	70	50	38
APR									
04...	1615	0	26	<3	300	360	360	90	28
MAY									
24...	1330	0	93	65	81	28	8	190	24
JUN									
27...	1600	0	11	11	170	26	27	100	28
SEP									
27...	1130	0	<1	9	330	66	<1	110	27

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS. 100 ML) (31625)
JUN		
27...	1600	4
SEP		
27...	1130	11

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV					
03...	1415	48	11.5	21	2.7
JAN					
10...	1200	35	6.5	31	2.9
APR					
04...	1615	55	12.0	327	49
MAY					
24...	1330	559	9.0	1920	2900
JUN					
27...	1600	107	14.0	18	5.2
SEP					
27...	1130	58	13.0	22	3.4

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°38'53", long 105°41'34", in SW¼NW¼ sec. 20, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, 250 ft upstream from Rio Grande, and 6.5 mi southwest of Questa.

DRAINAGE AREA.--190 mi^2.

PERIOD OF RECORD.--Water years 1966-69, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE (DEG C) (00010)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
JAN 06...	1200	E46	315	7.5	--	315	.80	<.01
APR 04...	1430	E56	390	8.0	13.0	71	--	.01
MAY 25...	1130	E560	140	7.2	8.0	36	--	--
JUN 28...	1200	E118	240	7.7	14.0	57	1.8	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
JAN 06...	1200	0	7	5	180	46	56	50	20
APR 04...	1430	0	12	3	160	260	260	50	19
MAY 25...	1130	0	78	63	68	25	12	160	7
JUN 28...	1200	0	9	7	140	23	23	40	9

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)
JAN 06...	1200	E46	--	33
APR 04...	1430	E56	13.0	18

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°32'06", long 105°42'30" in NW¼sec. 31, T.27N., R.12E., Taos County, Hydrologic Unit 13020101, at Dunn Bridge on county road, 50 ft upstream from mouth of Arroyo Hondo, 2.2 mi west of Arroyo Hondo, 11.6 mi northwest of Taos, and at mile 1,677.4.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--Water years 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 03...	1100	254	345	7.8	9.0	9.9	102	1.8
JAN 09...	1530	408	212	7.9	2.0	11.0	--	1.6
MAY 24...	1600	3270	186	8.0	8.0	--	54	--
JUN 28...	1000	1250	255	7.3	17.5	8.5	67	5.0

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 03...	1100	0	4	36	27	16	12	20	14
JAN 09...	1530	0	3	27	--	7	8	20	11
MAY 24...	1600	0	26	91	14	5	3	60	38
JUN 28...	1000	0	5	58	7	3	3	20	11

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
MAY 24...	1600	3270	8.0	426	3760
JUN 28...	1000	1250	17.5	4840	16300

08267500 RIO HONDO NEAR VALDEZ, NM

LOCATION.--Lat 36°32'30", long 105°33'21", Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 500 ft upstream from first diversion, 1.6 mi east of Valdez, 3.8 mi downstream from South Fork, and at mile 9.2.

DRAINAGE AREA.--36.2 mi^2.

PERIOD OF RECORD.--August 1934 to current year.

REVISED RECORDS.--WSP 1342: 1935. WSP 1712: Drainage area. WSP 1732: 1942(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1938. Altitude of gage is 7,650 ft, from topographic map. Prior to Oct. 28, 1938, at datum 1.92 ft lower.

REMARKS.--Records good. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--50 years, 34.5 ft^3/s, 25,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft^3/s May 13, 1941; maximum gage height, 4.81 ft Jan. 5, 1970 (ice jam); minimum discharge, about 1 ft^3/s Jan. 27, 1942, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 280 ft^3/s at 0045 hours May 25, gage height, 3.57 ft, maximum gage height, 4.70 ft Jan. 24, ice jam, no other peak above base of 80 ft^3/s; minimum daily, 9.0 ft^3/s Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	15	16	14	12	11	14	38	186	71	27	20
2	23	15	16	13	12	11	14	38	178	67	28	20
3	21	15	16	12	12	12	15	39	160	63	26	20
4	20	15	16	12	12	11	15	44	145	60	28	20
5	20	15	15	13	13	12	16	50	145	58	27	20
6	20	15	15	13	13	12	18	61	136	58	27	19
7	19	15	15	12	13	13	20	66	126	55	27	19
8	20	16	16	14	13	12	21	69	118	53	28	19
9	20	16	15	14	13	12	23	79	116	50	25	18
10	19	16	15	13	12	12	23	93	110	49	25	18
11	19	16	15	13	12	12	24	113	111	48	25	18
12	19	16	15	12	13	13	24	132	111	46	26	18
13	18	16	15	13	12	13	26	146	108	45	26	17
14	19	16	14	13	12	13	28	157	106	43	27	17
15	19	16	14	13	12	13	31	163	105	43	27	17
16	18	16	14	12	12	14	35	170	106	41	26	17
17	17	16	14	11	12	14	40	164	103	41	25	18
18	17	17	14	10	12	14	48	158	103	40	25	17
19	17	17	14	9.0	12	15	49	159	102	39	25	16
20	17	16	14	10	11	17	47	157	99	37	24	16
21	18	17	12	11	12	16	42	173	97	35	28	16
22	17	17	14	12	12	15	39	193	94	35	24	16
23	17	17	14	12	12	16	37	217	91	34	25	15
24	17	17	14	12	14	16	40	245	88	32	25	15
25	16	18	14	12	12	15	45	259	84	31	25	15
26	16	18	14	12	12	14	45	252	82	30	23	17
27	16	17	14	12	14	14	42	238	79	29	23	17
28	16	16	14	11	13	14	40	235	77	29	22	16
29	16	16	11	12	11	14	38	227	77	28	21	16
30	16	16	12	12	---	14	37	219	73	28	21	15
31	16	---	13	12	---	14	---	207	---	26	21	---
TOTAL	565	484	444	376.0	357	418	936	4561	3316	1344	782	522
MEAN	18.2	16.1	14.3	12.1	12.3	13.5	31.2	147	111	43.4	25.2	17.4
MAX	23	18	16	14	14	17	49	259	186	71	28	20
MIN	16	15	11	9.0	11	11	14	38	73	26	21	15
AC-FT	1120	960	881	746	708	829	1860	9050	6580	2670	1550	1040

CAL YR 1983 TOTAL 20381.0 MEAN 55.8 MAX 283 MIN 10 AC-FT 40430
WTR YR 1984 TOTAL 14105.0 MEAN 38.5 MAX 259 MIN 9.0 AC-FT 27980

08268500 ARROYO HONDO AT ARROYO HONDO, NM

LOCATION.--Lat 36°31'56", long 105°41'06", Taos County, Hydrologic Unit 13020101, in Arroyo Hondo Grant, on left bank 0.9 mi downstream from Arroyo Hondo, and at mile 1.4.

DRAINAGE AREA.--65.6 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1910 to June 1912 (discharge measurements and fragmentary gage-height record), July 1912 to December 1928 (fragmentary), and January 1932 to current year. Monthly discharge only for some periods, published in WSP 1312. Statement in WSP 328 that there was no flow in January and much of February 1912 is erroneous. Published as Rio Hondo near Arroyo Hondo prior to 1928, and as Rio Hondo at Arroyo Hondo 1928-65.

REVISED RECORDS.--WSP 1342: 1915, 1932(M), 1934-38(M). WSP 1712: Drainage area. WSP 1732: 1926. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 6,670 ft, from topographic map. See WSP 1923 for history of changes prior to Sept. 11, 1963. Sept. 11, 1963 to Apr. 2, 1969, at site 25 ft downstream on right bank at same datum.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 2,500 acres, of which about 1,700 acres is a transbasin diversion to Rio Lucero.

AVERAGE DISCHARGE.--68 years (water years 1913-28, 1933-84), 27.0 ft^3/s, 19,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1937).--Maximum discharge, 1,060 ft^3/s July 19, 1948, gage height, 3.75 ft, from rating curve extended above 200 ft^3/s; maximum gage height, 5.06 ft June 8, 1979, backwater from debris; minimum discharge, 3.3 ft^3/s May 7, 1977.

Maximum gage height observed, 5.45 ft, site and datum then in use, Aug. 23, 1935; discharge uncertain, but probably exceeded 1,200 ft^3/s. A minimum daily discharge of 3 ft^3/s occurred Oct. 19, 1912. Discharge not determined for the major floods of Oct. 6, 1911, Sept. 1, 1932 and July 22, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 238 ft^3/s at 0730 hours May 25, gage height, 3.86 ft, no other peak above base of 75 ft^3/s; minimum, 8.6 ft^3/s, part of several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.0	25	24	19	18	23	33	127	30	11	12
2	10	9.0	27	21	19	19	22	32	121	28	11	12
3	9.6	8.9	27	17	19	20	21	30	114	27	10	12
4	9.3	9.0	26	21	19	19	22	30	107	26	10	11
5	9.3	9.0	24	21	19	17	23	31	106	26	10	11
6	9.3	9.0	19	22	19	19	24	36	102	26	11	11
7	9.3	9.1	26	22	19	18	26	41	93	25	11	11
8	9.6	9.4	26	22	20	19	26	41	85	22	10	10
9	9.9	9.2	25	22	19	19	29	41	74	20	9.8	10
10	9.5	9.1	25	21	19	20	28	53	68	19	11	10
11	9.2	9.1	24	20	19	20	29	63	65	18	10	10
12	9.2	9.1	24	20	17	20	29	89	61	17	11	10
13	9.3	9.0	24	20	18	20	32	107	60	17	11	10
14	9.7	9.1	23	20	19	20	31	129	58	17	11	10
15	9.3	8.9	24	20	19	21	32	139	55	15	11	11
16	9.3	8.9	23	18	18	22	35	149	53	15	11	14
17	9.3	9.7	24	17	18	21	41	136	51	16	11	13
18	9.3	10	23	13	17	22	50	124	52	15	11	12
19	9.4	10	24	12	17	22	51	117	53	14	11	11
20	9.7	11	24	15	15	22	50	117	52	13	12	11
21	9.5	13	23	15	16	23	42	129	50	12	12	12
22	9.3	11	23	16	18	26	38	147	49	13	12	12
23	9.1	10	24	17	18	25	36	161	48	13	13	11
24	9.0	11	24	18	17	24	36	198	48	12	12	11
25	9.0	11	23	18	19	25	42	208	43	11	12	11
26	9.0	11	24	18	18	24	45	189	35	11	12	12
27	9.0	10	24	18	17	24	42	169	31	11	12	12
28	9.0	15	23	18	17	23	39	159	31	11	11	12
29	9.0	24	16	18	18	22	37	147	31	11	12	12
30	9.0	25	18	18	---	23	35	137	31	11	12	12
31	9.0	---	25	19	---	23	---	133	---	11	12	---
TOTAL	289.4	326.5	734	581	526	660	1016	3315	1954	533	346.8	339
MEAN	9.34	10.9	23.7	18.7	18.1	21.3	33.9	107	65.1	17.2	11.2	11.3
MAX	10	25	27	24	20	26	51	208	127	30	13	14
MIN	9.0	8.9	16	12	15	17	21	30	31	11	9.8	10
AC-FT	574	648	1460	1150	1040	1310	2020	6580	3880	1060	688	672

CAL YR 1983 TOTAL 18837.2 MEAN 51.6 MAX 288 MIN 8.9 AC-FT 37360
WTR YR 1984 TOTAL 10620.7 MEAN 29.0 MAX 208 MIN 8.9 AC-FT 21070

08268700 RIO GRANDE NEAR ARROYO HONDO, NM

LOCATION.--Lat 36°32'04", long 105°42'34", in NW¼ sec.31, T.27 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 350 ft downstream from Arroyo Hondo, 400 ft downstream from bridge on county road, 2.2 mi west of Arroyo Hondo, 11.6 mi northwest of Taos, and at mile 1,677.4.

DRAINAGE AREA.--8,760 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,470 ft, from topographic map.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres in Colorado and 15,000 acres in New Mexico. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 605 ft^3/s, 438,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s June 11, 1979, gage height, 7.34 ft; minimum, 136 ft^3/s Aug. 2, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 21	2000	1800	3.92	June 1	0045	*3970	5.75

Minimum discharge, 208 ft^3/s Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	237	316	441	417	477	925	1120	3830	981	304	378
2	216	245	351	428	420	468	919	1120	3540	893	344	342
3	211	252	373	418	423	474	919	1030	3320	846	359	314
4	209	264	387	428	423	445	875	960	2960	827	329	288
5	257	263	401	432	420	479	857	963	2570	777	333	287
6	272	260	424	427	421	460	848	1100	2190	720	337	309
7	245	260	442	430	422	479	837	1260	1930	656	344	309
8	239	258	446	440	428	511	868	1350	1690	607	329	316
9	243	254	433	447	426	506	910	1400	1480	622	371	311
10	239	252	431	450	434	512	916	1470	1290	605	432	316
11	230	252	439	451	436	520	940	1660	1180	620	363	297
12	214	253	463	454	437	532	978	1980	1090	658	340	292
13	217	261	470	448	437	545	992	2180	1020	673	391	287
14	220	265	473	454	444	573	1040	2450	1110	620	318	271
15	220	260	462	450	450	613	1070	2750	1120	585	337	260
16	215	258	445	432	438	706	1140	3110	1280	555	283	271
17	229	260	422	436	453	780	1240	3290	1390	560	270	278
18	227	266	431	426	450	867	1400	3220	1470	555	260	265
19	227	274	434	411	470	874	1420	2980	1480	580	280	266
20	222	249	438	414	461	883	1520	2630	1360	560	293	286
21	224	270	454	403	460	932	1760	2510	1200	522	308	296
22	223	300	461	404	465	1040	1750	2480	1170	494	344	298
23	221	265	468	400	470	1080	1680	2800	1270	458	399	285
24	216	251	469	399	462	989	1550	3440	1370	428	458	274
25	212	253	462	398	465	1260	1540	3670	1300	407	445	274
26	216	249	474	400	465	1230	1570	3770	1220	371	467	271
27	210	245	494	400	467	1130	1470	3880	1230	333	456	272
28	218	242	511	404	464	1030	1320	3780	1270	329	508	262
29	210	229	444	408	470	977	1210	3690	1250	329	486	260
30	217	279	445	411	---	954	1130	3800	1130	318	444	253
31	223	---	453	414	---	939	---	3840	---	315	415	---
TOTAL	6953	7726	13616	13158	12898	23265	35594	75683	49710	17804	11347	8688
MEAN	224	258	439	424	445	750	1186	2441	1657	574	366	290
MAX	272	300	511	454	470	1260	1760	3880	3830	981	508	378
MIN	209	229	316	398	417	445	837	960	1020	315	260	253
AC-FT	13790	15320	27010	26100	25580	46150	70600	150100	98600	35310	22510	17230

CAL YR 1983 TOTAL 295539 MEAN 810 MAX 3920 MIN 190 AC-FT 586200
WTR YR 1984 TOTAL 276442 MEAN 755 MAX 3880 MIN 209 AC-FT 548300

08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°26'22", long 105°30'11", in SW¼SE¼ sec.36, T.26 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Taos Pueblo Grant, on right bank 2.3 mi east of Taos Pueblo, 4.5 mi northeast of Taos, 5.8 mi upstream from Rio Lucero, and at mile 15.1.

DRAINAGE AREA.--66.6 mi^2.

PERIOD OF RECORD.--January 1911 to December 1916, January 1940 to December 1951, annual maximum, water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1911-12, 1914. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 20, 1962. Altitude of gage is 7,380 ft, from topographic map. See WSP 1923 for history of changes prior to Nov. 20, 1962.

REMARKS.--Records good except those for winter period, which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years (water years 1911-16, 1941-51, 1963-84), 29.3 ft^3/s, 21,230 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft^3/s May 26, 1979, gage height, 3.42 ft, from rating curve extended above 370 ft^3/s; maximum gage height, 3.90 ft, from floodmark, May 14, 1941, site and datum then in use; minimum discharge, about 0.9 ft^3/s Jan. 9, 1964, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 18	2215	125	1.59	May 16	2115	*516	2.72

Minimum discharge, 7.5 ft^3/s Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.8	10	11	9.7	9.7	15	50	185	36	21	15
2	14	9.7	10	12	10	9.8	15	59	173	35	21	14
3	13	9.7	10	12	12	9.7	15	66	153	34	20	14
4	12	9.7	10	12	11	9.7	14	84	135	33	20	14
5	12	9.7	10	12	11	9.6	17	103	129	32	20	13
6	12	9.7	10	12	11	9.6	24	135	115	32	20	13
7	11	9.6	10	12	12	9.6	31	144	100	32	20	12
8	11	10	10	12	12	9.6	31	141	88	33	21	12
9	11	10	10	12	12	9.5	41	159	80	33	22	12
10	11	9.7	10	12	11	10	38	209	75	32	22	12
11	11	9.9	10	13	11	11	41	268	72	31	20	12
12	10	10	10	12	11	11	37	314	71	31	21	12
13	11	10	10	12	11	11	41	360	73	30	26	12
14	11	9.8	10	12	10	13	50	394	71	30	24	12
15	11	8.8	9.7	11	10	15	56	390	69	29	24	13
16	11	9.6	10	11	10	17	64	465	68	28	22	13
17	11	9.9	10	11	11	17	80	433	70	28	20	15
18	10	11	9.9	11	10	19	102	347	70	27	19	14
19	10	11	9.8	11	9.6	17	114	298	70	27	18	13
20	10	11	9.9	11	10	16	107	261	62	26	18	12
21	10	12	8.8	11	10	21	76	287	60	26	19	13
22	10	11	9.2	11	9.8	26	60	333	57	25	18	13
23	10	9.7	9.4	10	9.8	23	54	352	53	25	20	12
24	9.9	10	9.5	10	9.6	19	60	390	49	24	18	12
25	9.7	11	9.6	10	9.6	21	83	373	47	23	17	11
26	9.7	11	9.8	10	9.6	20	87	301	45	23	17	13
27	9.7	11	10	10	9.6	19	70	277	46	22	16	14
28	9.7	10	10	10	9.6	17	58	246	43	22	16	13
29	9.7	10	10	9.9	9.6	16	52	216	40	22	16	13
30	9.7	10	10	9.9	---	15	46	205	38	22	16	12
31	9.7	---	11	9.6	---	15	---	195	---	21	16	---
TOTAL	333.8	304.3	306.6	345.4	302.5	455.8	1579	7855	2407	874	608	385
MEAN	10.8	10.1	9.89	11.1	10.4	14.7	52.6	253	80.2	28.2	19.6	12.8
MAX	14	12	11	13	12	26	114	465	185	36	26	15
MIN	9.7	8.8	8.8	9.6	9.6	9.5	14	50	38	21	16	11
AC-FT	662	604	608	685	600	904	3130	15580	4770	1730	1210	764

CAL YR 1983 TOTAL 20906.1 MEAN 57.3 MAX 429 MIN 7.0 AC-FT 41470
WTR YR 1984 TOTAL 15756.4 MEAN 43.1 MAX 465 MIN 8.8 AC-FT 31250

08271000 RIO LUCERO NEAR ARROYO SECO, NM

LOCATION.--Lat 36°30'30", long 105°31'49", Taos County, Hydrologic Unit 13020101, in Tract C Taos Pueblo Grant, on right bank 200 ft upstream from diversion dam for Tenorio and Indian ditches, 2.2 mi east of Arroyo Seco, 7.4 mi northeast of Taos, and at mile 8.1.

DRAINAGE AREA.--16.6 mi^2.

PERIOD OF RECORD.--April to December 1910 (discharge measurements and occasional gage heights), January 1911 to September 1915, March to December 1916 (fragmentary), October 1933 to December 1951, annual maximum, water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Fragmentary records for October 1915 to February 1916, published in WSP 438, are unreliable and should not be used. Published as "near Taos," 1910-16.

REVISED RECORDS.--WSP 1512: 1912, 1916, 1949. WSP 1732: Drainage area. WDR NM-75-1: 1973. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Nov. 21, 1962. Datum of gage is 8,051.44 ft National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Nov. 21, 1962.

REMARKS.--Records good. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years (water years 1911-15, 1934-51, 1963-84), 21.8 ft^3/s, 15,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310 ft^3/s June 8, 1979, gage height, 2.33 ft; maximum gage height, 3.12 ft, May 13, 1941, datum then in use; minimum discharge, about 1.4 ft^3/s Nov. 2, 1951, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 256 ft^3/s at 2030 hours May 24, gage height, 2.36 ft, no other peak above base of 70 ft^3/s; minimum, 5.1 ft^3/s Dec. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.8	7.5	6.9	6.6	6.1	10	15	137	44	19	15
2	13	8.7	7.4	6.9	6.8	6.2	10	16	132	41	20	15
3	12	8.6	7.2	7.0	7.0	6.4	10	16	116	39	21	15
4	11	8.6	7.0	7.1	7.6	6.5	9.9	18	103	37	23	14
5	11	8.6	6.9	7.2	7.6	6.3	11	22	99	35	23	14
6	12	8.3	6.9	7.4	7.6	6.5	13	27	88	35	22	13
7	11	8.3	6.9	7.6	7.8	6.6	14	30	78	33	22	13
8	11	8.5	7.0	7.6	8.3	6.5	15	33	69	31	23	13
9	11	7.9	7.1	7.7	7.9	6.4	17	36	63	30	22	12
10	10	8.2	7.1	7.5	7.6	6.7	17	56	62	30	21	12
11	10	8.5	7.1	7.3	7.4	7.2	17	74	68	28	21	12
12	10	8.5	7.1	7.5	7.0	7.4	16	91	76	28	21	12
13	9.9	8.3	7.1	7.3	6.5	7.7	16	104	79	26	22	12
14	10	8.1	6.9	7.3	6.7	8.2	18	109	76	24	21	11
15	10	7.7	7.0	7.2	6.9	8.6	21	112	80	24	22	11
16	9.7	8.1	6.9	6.9	7.3	8.9	25	132	87	24	21	12
17	9.6	8.0	6.9	6.7	6.3	8.9	31	127	85	24	20	13
18	9.6	8.1	6.8	6.5	6.2	9.5	35	91	83	23	20	12
19	9.8	8.7	6.8	6.6	6.1	9.2	33	91	81	23	21	11
20	9.8	8.2	6.7	6.8	5.9	10	32	91	74	21	19	11
21	9.7	8.0	6.0	7.0	6.1	12	25	119	71	21	20	11
22	9.6	8.0	7.1	7.1	6.7	14	21	122	68	20	19	11
23	9.3	8.2	6.8	7.2	6.3	13	18	166	63	19	20	10
24	9.2	8.0	6.8	7.4	6.5	13	20	204	60	19	19	9.9
25	9.0	10	7.0	7.5	6.2	14	22	218	58	18	19	9.7
26	8.9	10	7.1	7.5	6.0	12	23	192	57	18	18	11
27	8.8	9.0	7.1	6.4	5.9	12	20	178	55	18	18	11
28	8.9	8.4	7.0	5.9	6.3	11	16	152	50	20	17	10
29	8.7	8.1	7.0	5.9	6.1	10	15	139	48	20	17	9.9
30	8.6	7.7	6.5	5.9	---	10	14	142	44	19	16	9.5
31	8.6	---	6.7	5.9	---	10	---	139	---	19	16	---
TOTAL	312.7	252.1	215.4	216.7	197.2	280.8	564.9	3062	2310	811	623	356.0
MEAN	10.1	8.40	6.95	6.99	6.80	9.06	18.8	98.8	77.0	26.2	20.1	11.9
MAX	13	10	7.5	7.7	8.3	14	35	218	137	44	23	15
MIN	8.6	7.7	6.0	5.9	5.9	6.1	9.9	15	44	18	16	9.5
AC-FT	620	500	427	430	391	557	1120	6070	4580	1610	1240	706

CAL YR 1983 TOTAL 11578.7 MEAN 31.7 MAX 179 MIN 6.0 AC-FT 22970
WTR YR 1984 TOTAL 9201.8 MEAN 25.1 MAX 218 MIN 5.9 AC-FT 18250

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM

LOCATION.--Lat 36°22'39", long 105°40'05", Taos County, Hydrologic Unit 13020101, in Gijosa Grant, on left bank 1.9 mi southwest of Los Cordovas, 2.5 mi downstream from Rio Grande del Rancho, and at mile 5.1.

DRAINAGE AREA.--380 mi^2.

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WSP 1732: 1957(M). WSP 1923: 1957(P), 1958. WDR NM-81-1: 1979(P).

GAGE.--Water-stage recorder. Concrete control since July 16, 1963. Altitude of gage is 6,652 ft, from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 12,000 acres above station, of which about 1,700 acres is irrigated by water from Rio Hondo. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 57.0 ft^3/s, 41,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft^3/s Aug. 24, 1957, gage height, 5.80 ft, maximum gage height, 6.00 ft, July 30, 1982, from rating curve extended above 900 ft^3/s; minimum, 1.9 ft^3/s July 31, Aug. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 17	0015	*1380	5.26	Aug. 12	1700	410	3.06

Minimum daily discharge, 18 ft^3/s Sept. 20-25, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	33	40	35	50	54	80	334	497	46	24	22
2	31	33	54	33	44	61	79	356	386	45	23	22
3	28	33	72	31	43	64	71	373	383	44	23	22
4	28	32	64	31	44	51	67	437	410	42	23	22
5	28	32	53	30	43	43	71	495	380	41	23	22
6	29	32	52	29	42	46	77	578	373	40	23	22
7	27	31	52	28	43	44	98	648	334	39	23	22
8	25	32	51	28	45	50	109	666	266	38	23	22
9	26	34	53	27	42	54	131	707	222	37	23	21
10	25	33	55	27	46	56	156	809	197	36	24	21
11	24	34	54	27	45	56	170	924	177	36	24	21
12	25	34	55	27	41	53	158	1010	154	35	36	21
13	25	35	49	27	43	55	170	1090	143	33	32	21
14	27	35	44	28	52	56	202	1120	154	33	30	21
15	26	35	42	29	49	58	225	1220	143	32	29	21
16	27	36	47	31	44	68	256	1340	132	31	29	21
17	28	35	45	33	47	63	305	1350	140	30	28	25
18	28	37	49	34	44	65	401	1190	139	30	28	22
19	27	40	49	36	41	71	457	1070	171	29	27	22
20	30	40	51	37	39	69	474	996	133	28	27	22
21	32	49	47	37	39	66	393	967	107	28	26	22
22	30	48	51	37	45	81	325	994	84	28	26	21
23	29	40	55	37	46	87	286	1030	68	27	25	21
24	29	42	53	38	42	84	292	1080	54	27	25	21
25	29	39	51	38	51	83	365	1070	62	26	25	20
26	30	42	48	39	47	76	428	953	52	26	25	20
27	31	38	45	40	40	81	384	839	54	25	24	20
28	32	39	43	47	44	83	333	737	51	25	24	19
29	32	40	41	45	51	77	361	668	49	25	23	19
30	33	40	38	52	---	76	326	586	48	24	23	18
31	33	---	36	51	---	78	---	539	---	24	22	---
TOTAL	882	1103	1539	1069	1292	2009	7250	26176	5563	1010	790	636
MEAN	28.5	36.8	49.6	34.5	44.6	64.8	242	844	185	32.6	25.5	21.2
MAX	33	49	72	52	52	87	474	1350	497	46	36	25
MIN	24	31	36	27	39	43	67	334	48	24	22	18
AC-FT	1750	2190	3050	2120	2560	3980	14380	51920	11030	2000	1570	1260

CAL YR 1983 TOTAL 46384 MEAN 127 MAX 870 MIN 21 AC-FT 92000
WTR YR 1984 TOTAL 49319 MEAN 135 MAX 1350 MIN 18 AC-FT 97820

NOTE: No gage height record July 4 to Aug. 5.

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM
(Surveillance network station)

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¼NE¼ sec.15, T.24 N., R.11 E., Taos County, Hydrologic Unit 13020101, on left bank 1.7 mi downstream from bridge on State Highway 96, 2.0 mi downstream from Rio Pueblo de Taos, 11.8 mi southwest of Taos, and at mile 1,657.7.

DRAINAGE AREA.--9,730 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year. Prior to Octorber 1930 monthly discharge only, published in WSP 1312. Published as "at Taos Junction Bridge, near Taos" prior to 1934.

REVISED RECORDS.--WSP 788: 1934(M). WSP 828: Drainage area. WSP 1392: 1931-1932, 1935, 1937, 1945, 1950.

GAGE.--Water-stage recorder. Datum of gage is 6,050.3 ft National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1934, at bridge 1.7 mi upstream at different datum.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 620,000 acres in Colorado and 30,000 acres in New Mexico.

AVERAGE DISCHARGE.--59 years, 728 ft^3/s, 525,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft^3/s June 7, 1948, gage height, 9.18 ft, and June 22, 1949, gage height, 9.23 ft; minimum, 155 ft^3/s Sept. 21, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1888, about 14,000 ft^3/s June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft^3/s occurred June 9, 1905, May 28, 1920, and June 16, 1921, from comparison of records for stations near Lobatos and at Embudo.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,090 ft^3/s at 0745 hours May 25, gage height, 7.37 ft, no other peak above base of 1,600 ft^3/s; minimum, 240 ft^3/s Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	247	270	341	490	454	525	978	1360	4480	1050	319	396
2	255	279	384	474	463	527	969	1360	4170	940	351	370
3	247	283	425	451	459	545	978	1290	3870	890	370	348
4	245	294	433	478	467	498	934	1240	3490	859	351	320
5	263	297	434	474	464	515	909	1270	3050	819	348	304
6	311	295	441	471	465	523	918	1470	2640	768	345	331
7	284	290	468	471	467	505	918	1690	2240	701	360	322
8	271	291	481	480	476	557	952	1830	1970	646	347	342
9	275	292	472	484	470	562	1010	1900	1690	649	363	331
10	273	287	466	493	481	558	1040	2070	1470	648	439	336
11	265	287	474	487	490	573	1070	2380	1330	647	388	326
12	251	290	492	500	485	578	1100	2840	1210	682	378	320
13	250	295	500	493	488	590	1120	3200	1130	701	391	320
14	255	302	502	509	506	610	1180	3550	1190	656	424	305
15	255	296	491	497	511	650	1180	3890	1220	615	353	295
16	251	295	480	478	498	728	1320	4460	1350	584	319	305
17	261	296	458	475	501	820	1460	4900	1490	586	298	326
18	266	300	460	484	504	897	1690	4690	1580	581	292	310
19	263	312	465	480	515	911	1780	4310	1630	592	290	300
20	261	306	469	475	507	930	1880	3820	1510	587	340	320
21	265	295	483	470	499	966	2070	3620	1300	542	330	331
22	262	345	490	470	512	1080	2050	3580	1240	508	352	336
23	259	318	504	465	520	1160	1940	3850	1330	475	406	326
24	253	280	499	450	501	1040	1800	4540	1430	441	450	315
25	250	299	497	438	520	1280	1810	4920	1420	417	460	315
26	254	291	506	444	509	1310	1890	4880	1300	386	465	315
27	247	290	552	445	496	1220	1790	4860	1320	351	466	315
28	253	277	565	445	503	1110	1600	4700	1340	342	504	305
29	247	272	506	449	518	1040	1480	4520	1310	339	493	295
30	250	297	473	449	---	1010	1370	4560	1200	345	467	295
31	257	---	501	454	---	996	---	4500	---	340	434	---
TOTAL	8046	8821	14712	14623	14249	24814	41186	102050	55900	18687	11893	9675
MEAN	260	294	475	472	491	800	1373	3292	1863	603	384	323
MAX	311	345	565	509	520	1310	2070	4920	4480	1050	504	396
MIN	245	270	341	438	454	498	909	1240	1130	339	290	295
AC-FT	15960	17500	29180	29000	28260	49220	81690	202400	110900	37070	23590	19190

CAL YR 1983 TOTAL 360651 MEAN 988 MAX 5220 MIN 219 AC-FT 715400
WTR YR 1984 TOTAL 324656 MEAN 887 MAX 4920 MIN 245 AC-FT 644000

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)
NOV 02...	1600	240	--	200	8.3	7.8	--	10.0	15	8.2	17
JAN 09...	1145	474	235	256	7.7	8.0	--	1.0	--	11.4	<10
APR 04...	0900	987	--	349	7.5	8.0	--	5.0	16	11.2	17
MAY 24...	0915	4600	190	216	7.6	7.7	--	13.0	65	7.3	--
JUN 27...	1200	1290	260	--	7.5	--	17.0	19.0	14	--	21
SEP 26...	1530	320	300	335	7.8	8.4	--	14.0	4.8	9.4	60

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
NOV 02...	62	0	18	4.1	12	.7	1.5	115	16	1.9	.50
JAN 09...	93	0	28	5.7	15	.7	2.5	--	28	4.4	.50
APR 04...	110	22	33	7.2	25	1	3.8	90	62	9.0	.40
MAY 24...	78	17	24	4.5	9.9	.5	2.8	62	--	--	.30
JUN 27...	--	--	--	--	--	--	--	62	--	--	--
SEP 26...	120	13	35	7.3	23	1	3.2	105	45	6.7	.70

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 02...	12	140	.10	.11	.020	.18	.30	.010	.010	1.5	<.01
JAN 09...	28	170	.40	.39	.070	--	--	.050	.050	1.6	<.01
APR 04...	25	220	.40	.33	.160	.44	1.0	.210	.150	3.8	<.01
MAY 24...	16	--	<.10	<.10	.030	.97	--	.040	.110	10	<.01
JUN 27...	--	--	.10	<.10	.050	.25	.40	.010	<.010	5.8	<.01
SEP 26...	24	210	<.10	<.10	.030	1.6	--	.070	.040	1.8	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV 02...	1600	1	<1	10	<1	1	10	<10	8	9	6
JAN 09...	1145	--	--	30	0	--	--	--	3	--	24
APR 04...	0900	--	--	50	0	--	--	--	8	--	28
MAY 24...	0915	--	--	30	0	--	--	--	26	--	51
JUN 27...	1200	--	--	--	0	--	--	--	6	--	43
SEP 26...	1530	2	2	60	<1	<1	<10	10	4	2	47

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 02...	1	4	7	.1	<.1	14	6	<1	<1	30	5
JAN 09...	--	--	--	--	--	7	7	--	--	20	11
APR 04...	--	--	9	--	--	19	19	--	--	340	14
MAY 24...	--	--	5	--	--	4	3	--	--	60	7
JUN 27...	--	--	6	--	--	4	4	--	--	30	15
SEP 26...	5	<2	19	<.1	<.1	13	13	<1	<1	10	11

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
SEP 26...	<1	<1	10	20	16	4300	20	76	.11	20

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
SEP 26...	<7.6	.6	3.4	1.4	2.9	1.2	.07	2.8

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
APR 04...	0900	--	--	--	--	--	--	--	--	--
SEP 26...	--	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
APR 04...	--	--	--	--	--	--	--	--	--
SEP 26...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
APR									
04...	--	--	--	<.02	<.02	<.02	--	--	--
SEP									
26...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
JUN		
27...	1200	16
SEP		
26...	1530	18

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)
NOV					
02...	1600	240	10.0	16	10
JAN					
09...	1145	474	1.0	62	79
APR					
04...	0900	987	5.0	133	354
MAY					
24...	0915	4600	13.0	371	4610
JUN					
27...	1200	1290	19.0	97	338
SEP					
26...	1530	320	14.0	35	30

08279000 EMBUDO CREEK AT DIXON, NM

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¼SE¼ sec.19, T.23 N., R.10 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 750 ft upstream from U.S. Highway 64, 0.5 mi upstream from mouth, 0.5 mi east of Embudo Post Office, and 1.7 mi northwest of Dixon.

DRAINAGE AREA.--305 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to February 1926, October 1926 to September 1955, annual maximum, water years 1956-62, September 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for July 6-25, 1932, published in WSP 733, and maximum discharges for water years 1931-33, 1935, 1937-38, 1941, are unreliable and should not be used.

REVISED RECORDS.--WSP 1512: 1931-32, 1941, 1947(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,858.60 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1938, at site about 1 mi upstream at different datum. Nov. 30, 1938 to Aug. 1, 1941, at site about 0.9 mi upstream at datum about 59.9 ft higher. Aug. 2, 1941 to Sept. 1, 1971, at site 750 ft downstream at datum 9.10 ft lower. April 1956 to Sept. 21, 1962, crest-stage gage.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 6,500 acres, a small part of which is below gage.

AVERAGE DISCHARGE.--53 years (water years 1924-25, 1927-55, 1963-84), 78.6 ft^3/s, 56,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (SINCE 1941).--Maximum discharge, 4,200 ft^3/s Aug. 29, 1977, gage height, 7.10 ft, from rating curve extended above 1,600 ft^3/s; maximum gage height, 7.6 ft Aug. 4, 1967; minimum discharge, 0.06 ft^3/s June 26, 27, 1950.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	0930	*1560	5.14	May 25	1030	1540	5.05

Minimum discharge, 12 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	31	41	46	35	36	86	305	690	101	20	34
2	45	32	43	42	31	38	86	322	654	91	20	32
3	42	33	46	41	35	40	82	302	572	88	23	28
4	38	32	43	40	35	40	91	355	518	81	24	24
5	38	32	37	39	34	32	119	404	496	75	31	21
6	37	30	27	40	35	39	166	424	502	72	51	17
7	36	30	35	39	38	43	195	470	419	69	48	15
8	37	30	41	39	37	40	189	475	382	62	42	15
9	41	32	42	38	33	40	213	527	333	55	35	15
10	40	30	42	39	37	43	211	607	296	52	31	15
11	38	32	40	40	35	46	254	730	263	47	34	13
12	37	33	41	38	34	44	221	829	232	47	32	14
13	36	33	36	36	34	51	218	964	204	43	32	16
14	35	32	32	37	38	56	230	1050	199	44	31	14
15	35	31	39	35	36	62	222	1130	199	42	38	14
16	35	31	37	35	33	70	241	1310	200	40	38	15
17	36	30	39	34	37	71	285	1180	195	45	33	16
18	37	31	44	34	35	74	367	1000	199	43	29	16
19	36	34	42	33	33	71	407	964	265	37	27	17
20	37	30	43	33	34	74	419	903	215	32	34	15
21	40	37	38	32	33	82	330	940	181	29	35	16
22	39	38	38	32	33	98	264	1020	163	29	35	18
23	36	33	45	31	33	90	232	1110	136	29	46	18
24	35	23	43	31	33	81	237	1250	125	28	44	16
25	34	34	44	30	32	86	302	1350	114	29	43	16
26	36	35	47	29	32	78	339	1130	111	25	43	19
27	34	32	47	29	31	84	286	1010	109	25	41	24
28	33	26	42	30	33	72	261	914	118	25	35	25
29	31	30	40	31	36	74	275	820	109	22	32	24
30	31	35	47	32	---	84	276	764	107	20	34	23
31	32	---	45	33	---	76	---	705	---	20	37	---
TOTAL	1134	952	1266	1098	995	1915	7104	25264	8306	1447	1078	565
MEAN	36.6	31.7	40.8	35.4	34.3	61.8	237	815	277	46.7	34.8	18.8
MAX	45	38	47	46	38	98	419	1350	690	101	51	34
MIN	31	23	27	29	31	32	82	302	107	20	20	13
AC-FT	2250	1890	2510	2180	1970	3800	14090	50110	16470	2870	2140	1120

CAL YR 1983 TOTAL 50780 MEAN 139 MAX 813 MIN 23 AC-FT 100700
WTR YR 1984 TOTAL 51124 MEAN 140 MAX 1350 MIN 13 AC-FT 101400

08279000 EMBUDO CREEK AT DIXON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
NOV												
29...	1500	26	385	383	8.2	8.2	4.0	6.5	9.6	190	8	64
MAR												
26...	1335	73	258	282	8.4	8.2	2.0	4.0	10.6	130	8	42
MAY												
29...	1545	782	130	141	8.0	8.1	27.0	13.0	8.3	64	10	21
JUL												
24...	1330	28	410	417	8.0	8.4	25.0	20.0	8.0	200	4	67

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV											
29...	7.6	9.3	.3	1.4	--	--	21	12	.30	15	240
MAR											
26...	5.6	6.1	.2	.90	--	--	21	4.9	.20	11	160
MAY											
29...	2.7	2.0	.1	.80	--	--	11	1.2	<.10	6.7	78
JUL											
24...	7.7	10	.3	1.5	230	4.0	20	5.4	.40	16	250

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV			
29...	1500	10	13
MAR			
26...	1335	10	58
MAY			
29...	1545	<10	57
JUL			
24...	1330	30	8

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
29...	1500	26	6.5	139	9.8	75
JUL						
24...	1330	28	20.0	11	.83	87

08279500 RIO GRANDE AT EMBUDO, NM

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¼SW¼ sec.23, T.23 N., R.9 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 0.2 mi downstream from bridge at Embudo, 2.8 mi downstream from Embudo Creek, and at mile 1,643.1.

DRAINAGE AREA.--10,400 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1889 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Oct. 4 to Nov. 30, 1896, published in WSP 358, are unreliable and should not be used.

REVISED RECORDS.--WSP 358: 1900-1902. WSP 828: Drainage area. WSP 878: 1915-16. WSP 1512: 1892-99, 1904, 1916, 1931-32, 1939, 1944-45, 1950. WSP 1712: 1903(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,789.14 ft National Geodetic Vertical Datum of 1929. Jan. 1 to Feb. 28, 1889, nonrecording gage 1.2 mi upstream at different datum. March 1889 to December 1903, nonrecording gage 1,300 ft upstream at different datum. September 1912 to June 1914, water-stage recorder on downstream end of bridge pier at site 200 ft upstream at present datum.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres in Colorado and 40,000 acres in New Mexico. Several observations of water temperature were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1890-1930), 1,238 ft^3/s, 896,900 acre-ft/yr.
54 years (water years 1931-84), 789 ft^3/s, 571,600 acre-ft/yr, subsequent to upstream development.

EXTREMES FOR PERIOD OF RECORD (1889-1903 AND SINCE 1911).--Maximum discharge, 16,200 ft^3/s June 19, 1903, gage height, about 15.9 ft; minimum daily, 130 ft^3/s June 30, 1902. A flood of about 14,000 ft^3/s occurred between May 20 and June 10, 1905, from a comparison of records for Lobacos and Otowi Bridge. Another major flood occurred Sept. 29 or 30, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,010 ft^3/s at 1000 hours May 25, gage height, 9.52 ft, no other peak above base of 2,000 ft^3/s; minimum, 265 ft^3/s Nov. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	277	298	397	540	488	555	1030	1610	4950	1190	367	467
2	289	309	441	518	499	559	1020	1650	4680	1070	385	437
3	282	314	484	478	491	566	1020	1580	4340	1000	417	402
4	274	323	495	517	502	551	996	1570	3980	959	410	374
5	275	327	486	518	499	537	988	1620	3560	915	404	350
6	338	322	483	513	500	556	1040	1830	3210	862	431	367
7	314	319	508	511	503	525	1070	2150	2730	790	434	360
8	299	321	536	517	518	578	1090	2290	2450	720	420	372
9	306	323	529	524	506	589	1170	2390	2110	700	409	367
10	305	317	522	533	524	589	1210	2640	1860	702	492	371
11	296	319	525	519	525	611	1270	3050	1680	688	469	362
12	286	321	541	532	514	607	1280	3560	1530	720	425	351
13	278	328	547	521	515	624	1300	3980	1410	736	446	353
14	283	337	546	544	537	648	1360	4320	1430	708	498	338
15	282	333	545	531	546	690	1410	4770	1480	655	399	325
16	280	330	529	511	529	758	1500	5410	1570	626	407	326
17	285	328	512	498	531	866	1670	5790	1710	645	364	360
18	296	336	515	496	537	939	1970	5410	1800	628	346	347
19	290	349	520	500	535	950	2150	5060	1900	625	345	333
20	293	348	522	500	538	975	2230	4550	1780	628	397	338
21	298	332	529	495	521	1020	2320	4370	1530	585	399	359
22	295	388	534	490	538	1120	2250	4370	1440	558	408	363
23	290	369	558	490	551	1200	2120	4660	1480	528	473	356
24	283	310	553	490	529	1100	1970	5380	1560	492	509	345
25	279	338	549	480	551	1290	2030	5840	1560	471	535	338
26	282	338	558	480	545	1360	2140	5700	1450	440	521	347
27	280	332	598	480	523	1270	2040	5590	1390	407	548	353
28	282	311	602	480	528	1160	1810	5380	1460	393	553	346
29	280	317	546	485	543	1090	1700	5110	1450	386	552	334
30	277	342	486	485	---	1060	1600	5070	1350	382	535	331
31	291	---	550	486	---	1030	---	4970	---	392	505	---
TOTAL	8965	9879	16246	15662	15166	25973	46754	121670	64830	20601	13803	10772
MEAN	289	329	524	505	523	838	1558	3925	2161	665	445	359
MAX	338	388	602	544	551	1360	2320	5840	4950	1190	553	467
MIN	274	298	397	478	488	525	988	1570	1350	382	345	325
AC-FT	17780	19590	32220	31070	30080	51520	92740	241300	128600	40860	27380	21370

CAL YR 1983 TOTAL 402654 MEAN 1103 MAX 5560 MIN 237 AC-FT 798700
WTR YR 1984 TOTAL 370321 MEAN 1012 MAX 5840 MIN 274 AC-FT 734500

08281100 RIO GRANDE ABOVE SAN JUAN PUEBLO, NM

LOCATION.--Lat 36°03'58", long 106°04'34", in NE¼SE¼ sec.10, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020101, in San Juan Pueblo Grant, on left bank 0.8 mi upstream from bridge on State Highway 74, 1.0 mi northwest of San Juan Pueblo, 1.8 mi upstream from Rio Chama, 5.1 mi north of Espanola, and at mile 1,630.1.

DRAINAGE AREA.--10,550 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,630 ft, from topographic map.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres in Colorado and 42,000 acres in New Mexico. Several observations of water temperature were made during the year. San Juan lateral (station 08280100) and San Juan Pueblo ditch (station 08280200), both on left bank, and Guique ditch (station 08280700), on right bank, bypass gage for irrigation of several hundred acres below station. See tabulation below for monthly diversion, as furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--21 years, 742 ft^3/s, 537,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft^3/s June 9, 1979, gage height, 6.94 ft; minimum, 92 ft^3/s Aug. 10-11, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--For years of outstanding floods see records for Rio Grande at Embudo (station (08279500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,900 ft^3/s May 15, gage height, 5.79 ft, no other peak above base of 2,000 ft^3/s; minimum, 240 ft^3/s Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	266	295	367	574	504	569	1130	1820	4900	1230	285	457
2	286	312	420	527	500	574	1110	1840	4690	1100	299	417
3	287	335	497	472	497	582	1110	1780	4330	1030	339	328
4	272	332	509	515	507	573	1090	1760	3950	968	335	270
5	270	339	493	542	507	532	1070	1790	3520	960	348	273
6	345	327	472	516	507	561	1140	1930	3190	878	393	283
7	335	322	508	512	509	515	1180	2190	2770	801	387	295
8	299	321	543	516	528	580	1210	2340	2520	741	390	304
9	304	336	540	531	513	599	1310	2420	2220	690	344	300
10	311	333	531	547	528	600	1340	2620	2020	669	403	287
11	293	328	525	525	531	623	1440	2930	1810	669	410	272
12	286	330	540	543	516	620	1450	3430	1640	704	362	244
13	264	333	539	535	516	642	1480	3920	1510	719	357	236
14	272	339	535	557	542	674	1530	4180	1490	712	443	227
15	265	353	536	543	558	724	1560	4660	1530	641	323	236
16	271	347	537	519	539	788	1650	5160	1580	620	344	277
17	266	339	510	510	536	919	1810	5680	1700	620	273	283
18	279	334	510	522	552	988	2070	5370	1780	641	264	264
19	274	366	518	434	540	1010	2230	5010	1890	620	256	264
20	281	360	519	461	555	1050	2310	4470	1830	620	310	285
21	290	326	528	464	526	1080	2400	4270	1560	567	324	298
22	282	406	523	464	547	1160	2360	4230	1450	567	333	294
23	267	394	550	493	565	1270	2250	4450	1470	516	421	281
24	266	306	546	498	542	1170	2130	5120	1550	482	464	267
25	275	328	540	504	563	1340	2150	5730	1580	462	534	288
26	263	339	548	509	562	1440	2250	5620	1480	420	517	317
27	268	323	575	503	531	1360	2200	5540	1410	358	550	302
28	273	288	617	515	539	1250	1990	5340	1470	321	534	287
29	279	280	561	494	552	1180	1900	5050	1470	319	553	283
30	272	290	477	484	---	1160	1810	4990	1380	304	532	283
31	280	---	565	486	---	1120	---	4870	---	304	490	---
TOTAL	8741	9961	16179	15815	15412	27253	50660	120510	65690	20253	12117	8704
MEAN	282	332	522	510	531	879	1689	3887	2190	653	391	290
MAX	345	406	617	574	565	1440	2400	5730	4900	1230	553	457
MIN	263	280	367	434	497	515	1070	1760	1380	304	256	227
AC-FT	17340	19760	32090	31370	30570	54060	100500	239000	130300	40170	24030	17260
(†)	0	57	0	0	0	0	0	0	0	0	0	0
(††)	113	54	0	---	---	---	---	430	388	252	285	292
(†††)	274	344	0	---	---	---	33	571	567	412	339	185

CAL YR 1983 TOTAL 385992 MEAN 1058 MAX 5250 MIN 187 AC-FT 765600
WTR YR 1984 TOTAL 371295 MEAN 1014 MAX 5730 MIN 227 AC-FT 736500

(†) Estimated diversion, in acre-feet, by San Juan lateral.
(††) Estimated diversion, in acre-feet, by San Juan Pueblo ditch.
(†††) Estimated diversion, in acre-feet, by Guique ditch.

08284100 RIO CHAMA NEAR LA PUENTE, NM

LOCATION.--Lat 36°39'45", long 106°37'57", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 0.7 mi downstream from Rito de Tierra Amarilla, 3.1 southwest of La Puente, 6.7 mi upstream from flow line of El Vado Reservoir, and at mile 91.4.

DRAINAGE AREA.--480 mi^2, approximately.

PERIOD OF RECORD.--October 1935 to current year.

GAGE.--Water-stage recorder. Concrete control since Nov. 9, 1965. Altitude of gage is 7,083 ft, from river-profile map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 10,300 acres above station (1962 determination). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 332 ft^3/s, 240,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^3/s May 28, 1979, gage height, 6.35 ft, from rating extended above 5,400 ft^3/s; maximum gage height 6.46 ft May 14, 1984; minimum, 4.0 ft^3/s Sept. 19, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 9,000 ft^3/s occurred Apr. 16, 1937, based on flow of Rio Chama at Los Ojos (Park View) with allowance for tributary inflow. A peak on May 21 or 22, 1926, may have exceeded 10,000 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 14	2130	*10500	6.46	June 5	2315	2780	4.89
May 23	0015	7130	5.94				

Minimum discharge, 37 ft^3/s Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278	68	60	65	55	65	219	613	1910	273	69	89
2	215	72	65	70	55	68	195	689	1730	247	65	79
3	158	67	65	55	55	75	178	707	1450	215	65	67
4	116	63	60	70	55	85	194	989	1310	186	62	61
5	100	62	55	62	55	70	239	1450	1590	170	69	59
6	92	62	50	70	55	75	342	1680	1910	159	135	57
7	86	61	55	70	55	85	391	1720	1350	146	151	53
8	84	60	60	65	60	95	417	1920	1080	134	101	46
9	89	58	60	65	60	100	596	2340	899	152	77	46
10	86	60	65	65	65	110	429	2750	779	131	65	45
11	79	69	65	65	75	120	489	3850	697	129	61	45
12	76	71	65	65	60	130	453	4640	655	123	58	51
13	74	75	60	60	60	162	589	5510	636	147	65	46
14	72	76	55	65	75	190	748	6220	625	140	68	40
15	74	64	55	60	75	254	910	7420	636	124	153	43
16	74	56	55	55	60	306	1110	6840	643	143	90	58
17	75	64	55	50	60	282	1370	5190	606	165	77	67
18	75	80	55	45	75	272	1610	4260	535	136	75	59
19	73	67	60	40	60	219	1540	3680	488	124	124	52
20	66	68	55	45	60	270	1100	4200	485	105	174	49
21	65	74	50	45	60	373	816	4600	430	88	151	46
22	64	61	52	50	60	426	707	5120	372	80	117	50
23	64	55	54	50	70	279	711	4540	308	83	195	48
24	62	55	55	50	60	266	990	4290	288	79	155	46
25	62	60	55	50	75	329	1280	3980	296	78	149	45
26	60	58	60	60	70	259	943	3470	499	75	146	52
27	60	55	65	60	65	252	755	3010	345	71	110	68
28	60	50	60	55	60	207	683	2620	286	74	90	70
29	60	52	55	55	60	208	665	2300	266	75	84	60
30	59	55	55	55	---	224	609	2060	270	78	77	57
31	64	---	60	55	---	198	---	1790	---	76	80	---
TOTAL	2722	1898	1796	1792	1810	6054	21278	104448	23374	4006	3158	1654
MEAN	87.8	63.3	57.9	57.8	62.4	195	709	3369	779	129	102	55.1
MAX	278	80	65	70	75	426	1610	7420	1910	273	195	89
MIN	59	50	50	40	55	65	178	613	266	71	58	40
AC-FT	5400	3760	3560	3550	3590	12010	42200	207200	46360	7950	6260	3280

CAL YR 1983 TOTAL 189984 MEAN 521 MAX 6260 MIN 32 AC-FT 376800
WTR YR 1984 TOTAL 173990 MEAN 475 MAX 7420 MIN 40 AC-FT 345100

08284160 AZOTEA TUNNEL AT OUTLET, NEAR CHAMA, NM

LOCATION.--Lat 36°51'12", long 106°40'18", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on left bank at south portal, 0.2 mi upsream from Azotea Creek, and 6.2 mi southwest of Chama.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,519.87 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records represent regulated diversions from Rio Blanco, Little Navajo River, and Navajo River in San Juan River Basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--14 years, 139 ft^3/s, 100,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s May 17, 1978, gage height, 7.85 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft^3/s May 10, gage height, 7.28 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.30	.00	.00	.00	.00	.00	135	1000	209	26	96
2	.33	.33	.00	.00	.00	.00	8.3	132	1010	204	24	77
3	.33	.33	.00	.00	.00	.00	19	129	1010	238	27	52
4	.33	.33	.00	.00	.00	.00	23	210	934	148	19	42
5	.23	.14	.00	.00	.00	.00	46	354	934	108	18	34
6	.23	.00	.00	.00	.00	.00	68	368	902	84	328	27
7	.23	.00	.00	.00	.00	.00	73	381	828	66	146	23
8	.23	.00	.00	.00	.00	.00	94	457	710	130	81	20
9	.23	.00	.00	.00	.00	.00	116	630	614	279	58	17
10	.23	.00	.00	.00	.00	.00	88	818	598	161	43	15
11	.23	.00	.00	.00	.00	.00	106	846	606	85	34	15
12	.23	.00	.00	.00	.00	.00	104	1010	637	70	30	37
13	.23	.00	.00	.00	.00	.00	161	987	748	69	48	18
14	.23	.00	.00	.00	.00	.00	230	893	834	75	49	13
15	.23	.00	.00	.00	.00	.00	303	902	854	56	56	36
16	.23	.00	.00	.00	.00	.00	493	1010	823	74	38	55
17	.23	.00	.00	.00	.00	.00	689	944	752	74	33	90
18	.23	.00	.00	.00	.00	.00	725	1010	686	86	109	35
19	.23	.00	.00	.00	.00	.00	640	992	613	43	161	26
20	.23	.00	.00	.00	.00	.00	461	988	603	41	94	23
21	.23	.00	.00	.00	.00	.00	351	958	579	39	100	18
22	.23	.00	.00	.00	.00	.00	301	898	524	30	83	21
23	.23	.00	.00	.00	.00	.00	326	904	424	28	220	15
24	.14	.00	.00	.00	.00	.00	444	805	384	46	210	21
25	.14	.00	.00	.00	.00	.00	480	1010	396	41	144	13
26	.14	.00	.00	.00	.00	.00	349	1010	464	31	111	12
27	.23	.00	.00	.00	.00	.00	264	1010	407	29	91	41
28	.23	.00	.00	.00	.00	.00	230	1010	290	29	61	15
29	.23	.00	.00	.00	.00	.00	224	1010	237	42	67	13
30	.23	.00	.00	.00	---	.00	177	989	222	29	64	11
31	.23	---	.00	.00	---	.00	---	1000	---	32	73	---
TOTAL	7.26	1.43	.00	.00	.00	.00	7593.30	23803	19623	2676	2646	931
MEAN	.23	.048	.000	.000	.000	.000	253	768	654	86.3	85.4	31.0
MAX	.33	.33	.00	.00	.00	.00	725	1010	1010	279	328	96
MIN	.14	.00	.00	.00	.00	.00	.00	129	222	28	18	11
AC-FT	14	2.8	.00	.00	.00	.00	15060	47210	38920	5310	5250	1850

CAL YR 1983 TOTAL 65702.71 MEAN 180 MAX 1020 MIN .00 AC-FT 130300
WTR YR 1984 TOTAL 57280.99 MEAN 157 MAX 1010 MIN .00 AC-FT 113600

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°44'33", long 106°37'34", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 200 ft downstream from bridge, 0.2 mi downstream from Iron Spring Creek, 3.3 mi west of Los Ojos, and at mile 9.7.

DRAINAGE AREA.--112 mi^2.

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Concrete control since June 6, 1963. Datum of gage is 7,196.29 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft downstream at lower datum.

REMARKS.--Records represent inflow to Heron Reservoir and since Nov. 17, 1970, include San Juan River water imported through Azotea tunnel (station 08284160).

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--8 years (water years 1963-70), 10.5 ft^3/s, 7,610 acre-ft/yr, prior to completion of Azotea tunnel.
14 years (water years 1971-84), 151 ft^3/s, 109,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s Aug. 11, 1967, gage height, 3.88 ft, site and datum then in use, prior to completion of Azotea tunnel; no flow at times most years prior to 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft^3/s May 14, gage height, 4.78 ft; minimum daily, 0.13 ft^3/s Oct. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	.17	.93	3.7	2.6	6.8	82	180	1000	229	29	98
2	14	.26	1.4	3.1	2.6	8.2	62	180	1010	222	22	91
3	4.9	.22	1.8	3.6	2.6	11	73	158	1000	241	28	60
4	2.0	.20	1.6	3.6	2.6	13	82	257	946	169	18	41
5	1.1	.18	1.2	3.9	2.6	12	120	380	913	116	21	30
6	.72	.16	.52	4.1	2.9	11	184	398	912	93	267	27
7	1.1	.15	.56	4.3	2.9	11	195	398	835	77	188	23
8	1.0	.18	.76	5.4	3.2	30	199	452	727	88	93	20
9	1.0	.22	.80	5.8	3.2	45	286	608	623	308	68	18
10	.80	.22	.80	7.4	3.7	65	175	813	583	195	48	14
11	.67	.22	.76	4.8	3.7	80	218	829	593	93	38	13
12	.59	.22	.88	3.0	3.2	80	184	1030	618	75	30	33
13	.52	.24	.76	3.0	4.8	110	257	1020	727	68	49	18
14	.42	.27	.52	3.0	4.8	155	327	879	824	84	43	13
15	.40	.27	.42	3.0	4.5	190	407	929	868	62	68	25
16	.38	.26	.59	3.0	4.6	250	540	1030	868	66	40	59
17	.34	.24	.76	3.0	4.6	180	781	958	764	84	33	93
18	.30	.42	1.0	3.0	4.8	135	830	1030	711	100	103	38
19	.42	.72	1.0	3.0	4.8	100	753	1020	603	48	167	29
20	.34	.67	1.1	3.0	4.1	155	504	1000	563	46	100	24
21	.38	1.0	1.1	3.0	3.7	130	420	975	563	42	108	18
22	.34	1.3	1.3	3.0	3.9	200	371	901	519	22	84	18
23	.34	1.1	1.4	3.0	4.3	116	349	912	420	20	215	14
24	.24	.59	1.5	3.0	4.1	148	492	807	380	44	233	16
25	.20	.67	1.5	3.0	3.9	155	553	1020	375	43	155	12
26	.18	.80	1.6	3.0	3.6	86	389	1020	452	36	137	10
27	.15	.96	1.8	3.0	3.9	84	311	1020	402	30	103	37
28	.15	.88	1.9	3.0	4.1	82	277	1020	302	32	73	20
29	.13	.76	2.1	3.0	4.1	96	277	1020	237	40	62	13
30	.13	.96	3.1	3.0	---	88	237	998	249	30	82	10
31	.15	---	3.9	3.0	---	77	---	1010	---	28	66	---
TOTAL	53.39	14.51	39.36	109.7	108.4	2910.0	9935	24252	19587	2831	2771	935
MEAN	1.72	.48	1.27	3.54	3.74	93.9	331	782	653	91.3	89.4	31.2
MAX	20	1.3	3.9	7.4	4.8	250	830	1030	1010	308	267	98
MIN	.13	.15	.42	3.0	2.6	6.8	62	158	237	20	18	10
AC-FT	106	29	78	218	215	5770	19710	48100	38850	5620	5500	1850

CAL YR 1983 TOTAL 71579.28 MEAN 196 MAX 1020 MIN .07 AC-FT 142000
WTR YR 1984 TOTAL 63546.36 MEAN 174 MAX 1030 MIN .13 AC-FT 126000

08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°42'24", long 106°44'42", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 3.7 mi northwest of Heron Dam, 7.8 mi downstream from Horse Lake, and 9.9 mi west of Los Ojos.

DRAINAGE AREA.--45 mi^2, approximately.

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. No winter records subsequent to 1973. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Concrete control since June 10, 1963. Datum of gage is 7,188.85 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft upstream at higher datums.

REMARKS.--Diversions above station for irrigation of meadows and for off-channel stock tanks.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--11 years (water years 1963-73), 1.10 ft^3/s, 797 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft^3/s July 30, 1968, gage height, 4.9 ft, site and datum then in use, from rating curve extended above 37 ft^3/s on basis of slope-area measurements at gage heights 3.20 ft and 4.9 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	1.1					7.0	5.5	1.6	.72	.00	.24
2	9.0	1.0					7.0	5.3	1.8	.98	.00	.72
3	4.2	1.0					7.3	5.0	1.8	.76	.00	.57
4	2.3	.96					5.3	4.7	1.8	.48	.00	.34
5	1.5	.92					6.3	6.0	2.0	.30	.00	.18
6	1.2	.84					6.9	5.3	3.1	.28	.01	.09
7	1.1	.72					8.5	4.8	2.2	.48	.60	.06
8	.96	.80					8.8	4.2	1.8	.61	1.2	.04
9	1.0	1.0					11	4.0	1.5	.76	.45	.02
10	1.1	1.2					9.0	3.7	1.4	.96	.20	.02
11	1.1	1.2					8.8	3.5	1.3	.92	.10	.03
12	.88	1.1					7.4	3.3	1.2	.88	.11	.02
13	.72	1.2					7.9	3.0	1.1	.92	.18	.01
14	.64	1.1					8.1	2.8	1.0	.30	.30	.01
15	.64	.96					8.1	2.7	1.1	1.4	.36	.03
16	.57	.92					7.6	3.4	1.4	.96	.42	.03
17	.64	.88					7.4	3.2	2.0	.10	.88	.03
18	.68	1.4					6.7	2.7	1.5	.08	1.1	.02
19	.64	1.7					6.4	2.5	1.3	.05	.72	.02
20	.61	1.7					7.3	2.4	1.2	.08	.48	.02
21	.64	1.8					7.6	2.4	1.1	.05	.92	.05
22	.68	1.6					7.4	2.2	.88	.03	.68	.08
23	.68	1.5					5.7	2.0	.80	.01	1.3	.05
24	.64	1.7					5.1	2.0	.88	.01	1.1	.04
25	.61	1.5					4.9	1.7	.88	.01	1.3	.03
26	.57	1.4					5.3	1.6	.84	.00	1.1	.07
27	.57	1.4					4.9	1.5	.68	.00	1.0	.12
28	.57	1.4					5.1	1.5	.61	.00	.57	.07
29	.57	1.4					7.3	1.5	.75	.00	.36	.07
30	.68	1.4					7.1	1.4	.80	.00	.24	.08
31	1.1	---					---	1.4	---	.00	.20	---
TOTAL	48.79	36.80					213.2	97.2	40.32	12.13	15.88	3.16
MEAN	1.57	1.23					7.11	3.14	1.34	.39	.51	.11
MAX	12	1.8					11	6.0	3.1	1.4	1.3	.72
MIN	.57	.72					4.9	1.4	.61	.00	.00	.01
AC-FT	97	73					423	193	80	24	31	6.3

08284510 HERON RESERVOIR NEAR LOS OJOS, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, at Heron Dam on Willow Creek, 0.2 mi upstream from Rio Chama, 5.1 mi northeast of El Vado Dam, and 8.7 mi southwest of Los Ojos.

DRAINAGE AREA.--193 mi^2.

PERIOD OF RECORD.--October 1970 to current year. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Mar. 24, 1971, nonrecording gage.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 21, 1970. Total capacity 401,300 acre-ft at elevation 7,186.1 ft, low point on crest of uncontrolled spillway, including 1,340 acre-ft of dead storage at elevation 7,003.0 ft, invert of gate sill of outlet tunnel. Reservoir is used for storage of transmountain water from San Juan River basin and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 401,800 acre-ft July 28, 1982, elevation, 7,186.19 ft; no storage prior to Oct. 21, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 401,300 acre-ft Aug. 6, elevation, 7,186.10 ft; minimum, 315,400 acre-ft Apr. 5, elevation, 7,170.44 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1971)

7,170	312,600
7,180	366,200
7,190	424,700

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	399000	396300	388900	367400	352900	333600	316600	327800	375700	400700	400600	400800
2	399000	396300	388300	366900	352400	332800	316700	327900	377600	400800	400600	400900
3	398800	395900	387600	366400	351800	331900	316400	328200	379600	400900	400500	401000
4	398800	395800	387000	365900	351300	331100	315800	328700	381400	400900	400500	401000
5	398700	395700	386300	365500	350700	330100	315400	329400	383400	400800	400500	401000
6	398600	395300	385600	365200	350100	328700	315800	330100	385200	400500	401300	400600
7	398300	395100	384900	364800	349600	327200	316200	330900	386700	400100	401100	399300
8	398200	394800	384200	364400	349000	325900	316600	331600	388000	400000	401000	398100
9	398200	394700	383700	364000	348500	324600	317200	332800	389100	400400	400500	396800
10	398100	394600	383300	363400	347800	323400	317600	334400	390200	400800	400500	395700
11	398000	394300	382800	362900	347200	322200	317900	336000	391200	401000	400500	394600
12	398000	394200	382400	362400	346500	320900	318200	338100	392400	400900	400500	393700
13	397800	393900	381900	361900	345800	319200	318700	339900	393800	401000	400600	392500
14	397600	393700	381200	361600	345200	317800	319300	341700	395400	401100	400700	391200
15	397500	393500	380600	361300	344600	317300	320100	343500	397100	401100	400600	390200
16	397400	393300	379700	360700	344000	317800	321200	345600	398800	401100	400600	389600
17	397300	393100	379000	360200	343400	317600	322500	347400	400100	401100	400700	389000
18	397300	393100	378200	359800	342800	316900	323500	349400	400400	401100	400800	388600
19	397200	392800	377400	359200	342200	316500	324200	351300	400400	401100	401000	388700
20	397100	392700	376600	358800	341500	316300	324600	353300	400500	401000	400900	388600
21	396900	392800	375700	358300	340800	316200	324700	355200	400800	401000	400800	388600
22	396800	392500	374900	357700	340100	315900	324600	356900	401000	401000	400800	388400
23	396700	392200	374100	357200	339400	315500	325000	358600	400900	400900	401000	388300
24	396700	391900	373300	356800	338500	315500	325700	360100	400700	400900	401100	387800
25	396600	391900	372600	356300	337700	315600	326300	362100	400700	400800	401000	386500
26	396600	391600	371900	355800	336900	315700	326700	364000	400800	400800	400800	385800
27	396500	391400	371100	355300	336100	315900	326900	365900	401000	400700	400400	385800
28	396500	390900	370000	354800	335200	316100	327200	368000	400900	400700	400400	385700
29	396400	390200	369100	354400	334400	316300	327400	370000	400800	400800	400500	385700
30	396400	389600	368500	353800	---	316500	327700	371900	400600	400700	400600	385600
31	396400	---	368000	353400	---	316600	---	373800	---	400700	400800	---
MAX	399000	396300	388900	367400	352900	333600	327700	373800	401000	401100	401300	401000
MIN	396400	389600	368000	353400	334400	315500	315400	327800	375700	400000	400400	385600
(†)	7185.26	7184.10	7180.32	7177.69	7174.18	7170.77	7172.90	7181.34	7185.98	7185.99	7186.01	7183.40
(††)	-2460	-6770	-21590	-14600	-19000	-17800	+11100	+46100	+26800	+100	+100	-15200

CAL YR 1983 MAX 401100 MIN 318600 (††) +47000
WTR YR 1984 MAX 401300 MIN 315400 (††) -13200

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET

08284520 WILLOW CREEK BELOW HERON DAM, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, in outlet conduits of Heron Dam, 0.2 mi upstream from Rio Chama, 5.1 mi northeast of El Vado Dam, and 8.7 mi southwest of Los Ojos.

DRAINAGE AREA.--193 mi^2.

PERIOD OF RECORD.--January 1971 to current year.

GAGE.--Totalizing flowmeters in each of two outlet conduits in Heron Dam.

REMARKS.--Flow regulated by Heron Reservoir (station 08284510) since Oct. 21, 1970. Outlet conduits are 14-in and 120-in in diameter.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--13 years, 116 ft^3/s, 84,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,780 ft^3/s Dec. 18, 19, 1982; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,080 ft^3/s Mar. 13, 14; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	348	261	277	446	49	99	.00	273	.00	12
2	.00	74	349	261	294	447	52	49	.00	236	.00	12
3	.00	63	349	237	293	447	251	.00	.00	202	.00	13
4	37	33	349	203	292	447	402	.00	.00	163	.00	12
5	73	93	348	183	293	565	271	.00	.00	151	.00	21
6	73	93	348	193	293	758	.00	.00	.00	130	115	231
7	30	93	348	209	293	758	.00	.00	.00	48	284	587
8	.00	93	348	209	293	759	.00	.00	.00	.00	205	574
9	.00	93	294	240	292	757	.00	.00	.00	.00	45	574
10	.00	93	207	266	317	756	.00	.00	.00	16	.00	541
11	.00	93	210	266	352	756	.00	.00	.00	27	.00	504
12	1.0	93	206	266	352	867	.00	.00	.00	27	.00	504
13	43	93	206	258	351	1080	.00	.00	.00	27	.00	598
14	32	94	333	252	351	1080	.00	.00	.00	27	60	675
15	.00	93	415	252	352	669	.00	.00	.00	27	46	539
16	.00	94	415	252	352	355	76	.00	.00	37	5.0	373
17	.00	94	415	251	351	540	139	.00	160	46	13	357
18	.00	94	415	251	350	622	294	.00	364	46	13	159
19	.00	93	444	251	351	487	390	.00	584	28	90	1.0
20	53	93	464	252	350	402	391	.00	494	15	147	5.0
21	48	93	464	252	351	401	390	.00	442	15	122	13
22	.00	94	464	252	351	401	390	.00	441	15	92	24
23	.00	94	464	252	410	228	172	.00	441	15	140	24
24	.00	94	464	252	450	103	104	.00	441	15	198	287
25	.00	93	464	252	450	103	176	.00	391	15	241	611
26	.00	94	464	252	450	46	180	.00	352	6.3	264	435
27	.00	94	532	252	449	.00	177	.00	356	.00	112	24
28	.00	214	624	252	448	.00	172	.00	352	.00	.00	24
29	.00	350	567	252	447	.00	172	.00	331	.00	6.0	25
30	.00	349	353	252	---	29	137	.00	300	.00	12	24
31	.00	---	261	252	---	49	---	.00	---	.00	12	---
TOTAL	390.00	3231.00	11932	7585	10255	14358.00	4385.00	148.00	5449.00	1607.30	2222.00	7783.0
MEAN	12.6	108	385	245	354	463	146	4.77	182	51.8	71.7	259
MAX	73	350	624	266	450	1080	402	99	584	273	284	675
MIN	.00	.00	206	183	277	.00	.00	.00	.00	.00	.00	1.0
AC-FT	774	6410	23670	15040	20340	28480	8700	294	10810	3190	4410	15440

CAL YR 1983 TOTAL 48890.10 MEAN 134 MAX 1150 MIN .00 AC-FT 96970
WTR YR 1984 TOTAL 69345.30 MEAN 189 MAX 1080 MIN .00 AC-FT 137500

08285000 EL VADO RESERVOIR NEAR TIERRA AMARILLA, NM

LOCATION.--Lat 36°35'39", long 106°44'00", Rio Arriba County, Hydrologic Unit 13020102, Tierra Amarilla Grant, at outlet tower of dam on Rio Chama, at village of El Vado, 12.4 mi southwest of Tierra Amarilla, and at mile 77.7.

DRAINAGE AREA.--873 mi^2, of which about 100 mi^2 probably is noncontributing.

PERIOD OF RECORD.--January 1935 to September 1965 (monthend contents only), October 1965 to current year. Prior to October 1967, contents at about 0730 hours.

GAGE.--Water-stage recorder. Prior to October 1967, nonrecording gage only below gage height 6,879.3 ft. Datum of gage is 8.21 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 196,500 acre-ft between gage heights 6,759.0 ft and 6,902.0 ft, top of spillway gate. Dead storage, 1,060 acre-ft below 6,775.0 ft, sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan-Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft^3/s to about 6,000 ft^3/s.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 204,900 acre-ft, of which 7,400 acre-ft was uncontrolled storage, June 4, 5, 1948, gage height, 6,904.2 ft; no storage at times prior to December 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 146,700 acre-ft June 6, gage height, 6,885.90 ft; minimum, 121,500 acre-ft Nov. 5-7, gage height, 6,877.62 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1966)

6,865	96,490	6,880	130,800
6,870	107,000	6,890	158,500

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125300	121700	121700	129700	129500	129600	139100	138700	145800	140200	135400	128700
2	125100	121700	121700	129700	129500	129700	139000	138700	145700	139800	134000	127700
3	124700	121600	121800	129700	129500	129700	138800	138600	145400	139700	132400	126700
4	124300	121600	121900	129700	129500	129700	138800	138900	145400	139600	131000	125900
5	124100	121500	121900	129500	129600	129900	139100	139600	146200	139700	129500	125800
6	124100	121500	121800	129500	129600	130500	139200	139400	146700	139700	129200	125700
7	123900	121500	121800	129400	129600	131200	139100	138800	145700	139700	129800	125900
8	123700	121600	121800	129400	129600	131900	139000	139000	145400	139700	130200	125900
9	123600	121600	121900	129400	129600	132600	139200	139100	145400	139800	130300	125900
10	123500	121600	121900	129400	129600	133300	138900	139400	145800	139800	130200	125900
11	123300	121700	122000	129500	129600	134100	138800	139700	145800	139800	130200	125700
12	123200	121700	122100	129500	129500	135100	138900	140900	145600	139800	130200	125400
13	123100	121800	122100	129500	129500	136600	139000	142300	145600	139700	130200	125100
14	123000	121700	122300	129700	129500	138300	139100	143400	145500	139700	130300	125000
15	122900	121600	122700	129800	129600	139200	139100	144600	145100	139700	130400	125000
16	122700	121600	123100	129800	129600	139200	139200	145700	144100	139700	130400	125000
17	122700	121600	123600	129700	129700	139200	139300	145200	143900	139700	130500	125100
18	122600	121700	124000	129600	129700	139400	139000	144500	143400	139700	130400	125100
19	122400	121700	124400	129500	129700	139400	138800	144500	142600	139600	130400	125100
20	122300	121900	124800	129500	129700	139500	139000	144600	142000	139600	130800	125100
21	122200	122000	125300	129500	129700	139700	139300	144400	141800	139600	131100	125000
22	122100	121800	125700	129500	129700	139700	139100	145800	141400	139500	130800	125000
23	121900	121700	126200	129600	129600	139400	138900	146600	140900	139500	130600	124900
24	121700	121700	126600	129600	129600	139300	139200	145900	140200	139500	130900	124900
25	121700	121800	127000	129600	129600	139300	139000	145000	139700	139500	131500	124800
26	121800	121900	127600	129600	129600	139200	138500	144600	139900	139500	131900	124800
27	121800	121900	128200	129600	129600	138900	138700	145200	139800	139400	132100	124900
28	121800	121900	128900	129600	129600	138900	139000	145500	139700	139400	132000	124900
29	121800	121700	129400	129600	129600	138900	139000	145500	139800	139300	131800	124900
30	121800	121600	129600	129600	---	138900	138800	145800	140100	138700	130600	124800
31	121800	---	129600	129600	---	139000	---	145800	---	137100	129600	---
MAX	125300	122000	129600	129800	129700	139700	139300	146600	146700	140200	135400	128700
MIN	121700	121500	121700	129400	129500	129600	138500	138600	139700	137100	129200	124800
(†)	6876.38	6876.33	6879.52	6879.50	6879.51	6883.08	6883.00	6885.56	6883.48	6882.36	6879.52	6877.63
(††)	-3480	-120	+7980	0	0	+9400	-200	+7000	-5700	-3000	-7500	-4800

CAL YR 1983 MAX 156300 MIN 121500 (††) -4200
WTR YR 1984 MAX 146700 MIN 121500 (††) -400

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET

08285500 RIO CHAMA BELOW EL VADO DAM, NM

LOCATION.--Lat 36°34'48", long 106°43'24", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on left bank 1.5 mi downstream from El Vado Dam, 2.8 mi upstream from Rio Nutrias, 13 mi southwest of Tierra Amarilla, and at mile 76.2.

DRAINAGE AREA.--877 mi^2, of which about 100 mi^2 is probably noncontributing.

PERIOD OF RECORD.--October 1913 to November 1915, April to November 1916, March, April 1920, September 1920 to August 1924, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "Chama River" prior to 1935, as "near Tierra Amarilla" 1913-14, 1935-47, as "near El Vado" 1915-16, and as "at El Vado" 1920-24.

REVISED RECORDS.--WSP 1312: 1914, 1949. WSP 1392: 1949.

GAGE.--Water-stage recorder. Datum of gage is 6,696.12 ft National Geodetic Vertical Datum of 1929. Prior to October 1935, at site 1.5 mi upstream at different datum. October 1935 to September 1938 at site 1.1 mi upstream at datum 30.34 ft higher.

REMARKS.--Records good. Flow regulated by El Vado Reservoir (station 08285000) since 1935. Flow affected by release of transmountain water from Heron Reservoir (station 08284510) since May 1971. Diversions for irrigation of about 10,600 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23), 448 ft^3/s, 324,600 acre-ft/yr, prior to completion of El Vado Dam.
35 years (water years 1936-70), 373 ft^3/s, 270,200 acre-ft/yr, prior to release of transmountain water.
14 years (water years 1971-84), 440 ft^3/s, 318,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft^3/s May 22, 1920, gage height, 12 ft, site and datum then in use, from rating curve extended above 3,500 ft^3/s; no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,010 ft^3/s May 17, 1941, gage height, 6.89 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4 or 5, 1911, was greater than floods in September 1904 and May 1920, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,260 ft^3/s May 15, gage height, 6.62 ft; minimum, 45 ft^3/s Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	369	81	380	300	347	504	244	753	1720	532	812	618
2	361	140	380	300	369	514	269	718	1760	571	805	597
3	348	172	380	296	350	520	509	670	1530	493	805	591
4	348	115	380	296	326	519	616	806	1290	343	805	466
5	294	166	377	297	328	518	326	1020	1030	278	798	104
6	227	166	377	300	343	519	315	1750	1590	240	468	276
7	223	158	378	300	356	521	417	1870	1830	167	124	598
8	171	145	381	298	356	524	442	1780	1210	109	99	592
9	170	141	334	298	356	526	497	2240	858	99	81	586
10	170	146	242	296	377	527	556	2860	641	115	81	588
11	158	146	244	295	412	523	457	3470	695	161	76	628
12	141	146	244	296	414	526	385	3780	739	188	71	743
13	175	146	244	299	415	527	477	3920	679	188	71	745
14	169	174	242	299	403	527	644	4190	675	188	110	729
15	130	208	244	299	395	578	841	4650	840	192	130	558
16	130	177	244	313	395	731	1010	4650	979	196	126	374
17	114	146	244	325	396	848	1300	4910	979	192	136	372
18	117	145	244	328	395	844	1850	4440	1150	192	135	225
19	146	143	273	320	398	686	1920	3890	1450	177	185	49
20	176	143	294	313	398	575	1310	3770	1250	163	176	67
21	189	192	294	304	420	737	990	4180	943	130	120	81
22	133	257	294	304	440	900	1090	3850	980	101	434	79
23	133	195	294	304	470	667	909	3860	1040	94	441	80
24	104	149	294	304	499	470	834	4390	1040	104	196	273
25	63	149	294	309	499	445	1420	4220	846	104	148	628
26	60	150	296	309	499	445	1300	3380	682	101	174	465
27	60	150	298	316	501	401	779	2510	739	101	148	59
28	63	270	294	323	502	229	654	2340	687	99	128	83
29	66	466	294	323	504	213	801	2130	537	99	274	89
30	67	422	296	323	---	276	805	1820	468	434	611	91
31	74	---	299	323	---	243	---	1730	---	812	613	---
TOTAL	5149	5404	9373	9510	11863	16583	23967	90547	30857	6963	9381	11434
MEAN	166	180	302	307	409	535	799	2921	1029	225	303	381
MAX	369	466	381	328	504	900	1920	4910	1830	812	812	745
MIN	60	81	242	295	326	213	244	670	468	94	71	49
AC-FT	10210	10720	18590	18860	23530	32890	47540	179600	61200	13810	18610	22680

CAL YR 1983 TOTAL 231143 MEAN 633 MAX 4370 MIN 36 AC-FT 458500
WTR YR 1984 TOTAL 231031 MEAN 631 MAX 4910 MIN 49 AC-FT 458200

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM

LOCATION.--Lat 36°19'06", long 106°35'50", Rio Arriba County, Hydrologic Unit 13020102, on left bank 40 ft downstream from site of former bridge, 7.7 mi downstream from Rio Gallina, 9 mi northwest of Youngsville, 15.6 mi upstream from Abiquiu Dam, 30.3 mi downstream from El Vado Dam, and at mile 47.4.

DRAINAGE AREA.--1,600 mi^2, of which about 100 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft, from topographic map.

REMARKS.--Water-discharge records good. Flow regulated by El Vado Reservoir (station 08285000). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 15,000 acres above station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 358 ft^3/s, 259,400 acre-ft/yr, prior to release of transmountain water.
14 years (water years 1971-84), 473 ft^3/s, 342,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,550 ft^3/s May 20, 1973, gage height, 8.70 ft; minimum 7.5 ft^3/s Oct. 17, 18, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred on Sept. 29, 1904, Oct. 4 or 5, 1911, and May 22, 1920.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,520 ft^3/s May 18, gage height, 7.59 ft, maximum observed; minimum daily, 68 ft^3/s Oct. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	412	85	390	319	326	549	321	835	2000	522	777	570
2	425	88	396	316	364	616	294	819	1990	558	781	567
3	364	206	399	314	362	698	364	733	1850	557	780	569
4	352	124	404	318	335	676	780	792	1610	392	780	566
5	350	146	394	316	335	578	403	1060	1450	295	778	210
6	227	173	390	316	338	548	361	1480	2330	258	767	313
7	261	174	390	315	363	552	486	2070	2450	218	172	566
8	184	158	391	315	362	582	538	1660	1700	132	146	572
9	209	155	391	315	362	633	537	2190	974	101	96	574
10	183	152	277	314	363	712	661	3090	638	98	85	576
11	178	152	259	312	413	699	549	3770	644	115	83	707
12	155	153	259	313	419	667	468	4120	815	160	75	719
13	140	155	257	311	420	677	431	4360	700	193	79	721
14	212	151	256	318	419	661	684	4800	697	196	74	684
15	146	207	261	315	401	679	829	5430	755	174	157	378
16	135	219	256	309	404	798	1080	5880	988	193	133	377
17	135	157	258	341	406	947	1300	6330	990	209	284	370
18	108	159	257	330	401	935	1900	6480	1020	170	232	110
19	138	154	263	325	402	836	2230	6330	1460	167	160	73
20	151	154	310	347	403	619	1670	5800	1400	147	217	76
21	213	167	311	304	404	682	1120	5040	996	142	169	85
22	156	267	310	310	444	984	1140	5610	945	132	244	82
23	137	252	315	303	451	865	1180	5740	1050	130	734	82
24	137	163	309	304	501	525	756	5720	1060	87	263	545
25	95	160	312	313	504	478	1370	5740	998	91	163	623
26	69	160	320	318	505	478	1630	5090	676	92	201	183
27	68	160	342	314	505	474	1000	4180	753	88	192	76
28	68	158	356	324	509	386	697	3590	725	95	119	89
29	73	442	319	324	522	170	821	2870	625	94	141	91
30	74	467	315	324	---	376	934	2280	467	113	504	91
31	75	---	317	323	---	283	---	2030	---	757	609	---
TOTAL	5630	5518	9984	9840	11943	19363	26534	115969	34756	6676	9995	11245
MEAN	182	184	322	317	412	625	884	3741	1159	215	322	375
MAX	425	467	404	347	522	984	2230	6480	2450	757	781	721
MIN	68	85	256	303	326	170	294	733	467	87	74	73
AC-FT	11170	10940	19800	19520	23690	38410	52630	230000	68940	13240	19830	22300

CAL YR 1983 TOTAL 248815 MEAN 682 MAX 5130 MIN 40 AC-FT 493500
WTR YR 1984 TOTAL 267453 MEAN 731 MAX 6480 MIN 68 AC-FT 530500

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to December 1974.
WATER TEMPERATURES: October 1962 to December 1974.
SUSPENDED-SEDIMENT DISCHARGES: October 1962 to December 1974.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT 26...	1555	69	386	12.0	123	23	--	--
NOV 25...	1540	167	319	10.0	50	23	--	--
DEC 19...	1640	250	343	4.0	39	26	--	--
MAR 15...	1415	703	481	2.0	3640	6910	24	33
APR 30...	1812	953	333	8.0	170	437	--	--
JUN 11...	1615	396	225	15.0	93	150	--	--
JUL 24...	1400	91	431	20.0	1790	440	70	85
SEP 06...	1330	102	295	18.0	87	24	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT 26...	--	93	--	--	--	--	--
NOV 25...	--	--	--	--	--	--	--
DEC 19...	--	--	--	--	--	--	--
MAR 15...	46	--	69	83	92	97	100
APR 30...	--	--	--	--	--	--	--
JUN 11...	--	67	--	--	--	--	--
JUL 24...	95	100	--	--	--	--	--
SEP 06...	--	98	--	--	--	--	--

08286900 ABIQUIU RESERVOIR NEAR ABIQUIU, NM

LOCATION.--Lat 36°14'24", long 106°25'44", Rio Arriba County, Hydrologic Unit 13020102, in Piedra Lumbre Grant, in operations building at Abiquiu Dam on Rio Chama, 6.6 mi northwest of Abiquiu, and at mile 32.1.

DRAINAGE AREA.--2,146 mi^2, of which about 100 mi^2 is probably noncontributing.

PERIOD OF RECORD.--February 1963 to September 1965 (monthend contents only), October 1965 to current year. October 1969 to December 1975, contents at 0800 hours.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed Feb. 5, 1963. Capacity, 1,212,000 acre-ft between elevations 6,060 ft, invert of outlet tunnel, and 6,350 ft, crest of spillway, based on capacity table effective Jan. 1, 1980. No dead storage. Reservoir is used for flood control and, since March 1976, for recreation. A desilting pool of about 2,000 acre-ft was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft and continued until December 1975.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 235,000 acre-ft May 29, 1984, elevation, 6,228.09 ft; no storage at times prior to May 1968 and Jan. 11 to Mar. 25, 1976.

EXTREMES FOR CURRENT YEAR.-Maximum contents, 235,000 acre-ft May 29, elevation, 6,228.09 ft; minimum, 98,280 acre-ft Dec. 20, elevation 6,191.09 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1978)

6,155	26,880	6,180	70,600
6,160	33,350	6,200	125,400
6,170	49,900	6,220	199,900

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105100	104700	103600	102400	115200	134400	143300	141400	233200	162800	155900	149900
2	105200	104800	103600	102800	115700	135500	143300	141400	233100	158800	155600	149800
3	105000	104900	103300	103400	116200	136600	142700	141400	233200	156900	155400	149800
4	104800	104800	103000	103900	116800	137800	142900	141500	231300	156500	155400	149700
5	104900	104600	102800	104300	117400	138800	142600	142100	229500	156800	155500	149500
6	104900	104200	102400	104800	118100	139800	142600	143200	228900	157000	155800	149500
7	104900	104100	102700	105200	118700	140600	142800	144700	226300	157200	155400	149600
8	105000	104300	103000	105700	119300	141400	143100	144700	224800	157200	155400	149500
9	105000	104300	103000	106200	119900	142500	143100	145900	222100	157200	155400	149500
10	105000	104300	102600	106500	120600	143600	142800	148700	219200	157200	155300	149500
11	104900	104300	102000	106800	121200	144700	142100	152800	216200	157100	155300	149400
12	104600	104200	101500	107000	122000	145400	141700	158400	213500	157000	155300	149300
13	104500	104200	100900	107300	122700	145300	141500	162800	210400	157000	155200	149200
14	104600	104200	100600	107700	123500	145100	141800	168100	207400	156900	155300	149200
15	104700	104200	99930	108000	124000	144600	142400	174700	204700	156800	155300	149200
16	104800	104400	99470	108200	124700	144000	142800	181700	202300	157200	155300	148500
17	104800	104400	99140	108400	125400	144000	143100	188900	199400	156800	155500	148700
18	104900	104500	98780	108700	126000	143800	143900	194900	197300	156400	155500	149200
19	104800	104500	98450	108900	126700	143500	145300	199100	195800	156300	155600	149200
20	104800	104500	98280	109300	127400	142900	145200	203600	194100	156100	155500	149100
21	104800	104400	98370	109800	128200	142400	143900	208000	191700	156000	155100	149000
22	104800	104400	98700	110200	128800	142300	142700	212500	189300	155700	154900	149000
23	104700	104400	99000	110600	129700	142600	141500	217000	186800	155700	155400	148800
24	104600	104400	99330	111200	130300	143500	141700	223900	184500	155600	155500	148800
25	104600	104400	99690	111600	130900	143500	142500	227500	182200	155600	155500	149100
26	104700	104400	100000	112200	131300	142800	142600	231300	179100	155500	155400	149000
27	104700	104400	100400	112800	131900	142600	141900	233700	176000	155500	154200	148800
28	104700	103900	100800	113300	132600	142500	141500	234500	173000	155400	152500	148800
29	104700	103900	101000	113800	133400	142300	141400	235000	169700	155400	150600	148800
30	104800	103900	101300	114300	---	142900	141400	234200	166000	155400	150000	148700
31	104800	---	101800	114800	---	143000	---	234200	---	156000	149000	---
MAX	105200	104900	103600	114800	133400	145400	145300	235000	233200	162800	155900	149900
MIN	104500	103900	98280	102400	115200	134400	141400	141400	166000	155400	149000	148500
(†)	6193.39	6193.10	6192.37	6196.72	6202.33	6205.11	6204.68	6227.89	6211.43	6208.72	6207.06	6206.69
(††)	-300	-870	-2090	+13000	+18600	+9600	-1600	+92800	-68200	-10000	-7000	-300

CAL YR 1983 MAX 175500 MIN 80040 (††) +19820
WTR YR 1984 MAX 235000 MIN 98280 (††) +43600

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM

LOCATION.--Lat 36°14'12", long 106°24'59", in SE¼SE¼ sec.8, T.23 N., R.5 E., Rio Arriba County, Hydrologic Unit 13020102, on right bank 0.8 mi downstream from Abiquiu Dam, 5.9 mi northwest of Abiquiu, and at mile 31.3.

DRAINAGE AREA.--2,147 mi^2, of which about 100 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year (monthly discharge only, October 1961).

GAGE.--Water-stage recorder. Concrete control since Jan. 25, 1966. Altitude of gage is 6,040 ft, from topographic map. Prior to Jan. 25, 1966, at datum 1.60 ft lower.

REMARKS.--Water-discharge records good. Flow controlled by El Vado Reservoir (station 08285000) 46.4 mi upstream and Abiquiu Reservoir (station 08286900) 0.8 mi upstream. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 54.5 mi upstream. Diversions for irrigation of about 17,600 acres above station. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 384 ft^3/s, 278,200 acre-ft/yr, prior to release of transmountain water.
14 years (water years 1971-84), 489 ft^3/s, 354,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft^3/s July 1, 1965, gage height, 6.69 ft, datum then in use; maximum gage height, 7.28 ft Jan. 14, 1967 (backwater from ice); minimum discharge, about 0.5 ft^3/s Mar. 17, 1966, Jan. 28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,560 ft^3/s June 29, gage height, 5.49 ft; minimum, 45 ft^3/s Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	414	79	506	57	89	106	210	1070	2300	2390	840	590
2	414	79	543	57	90	100	396	1070	2210	2520	890	590
3	446	134	543	57	80	89	596	1070	2100	1780	869	590
4	442	234	543	72	56	89	751	1120	2290	984	819	590
5	325	262	543	102	55	86	590	1240	2380	147	808	238
6	246	262	543	92	55	86	424	1300	2370	117	737	556
7	225	196	331	73	55	117	509	1700	2480	106	392	573
8	186	125	207	72	56	140	509	2050	2520	109	89	573
9	186	142	329	110	57	140	655	2040	2520	106	90	586
10	186	132	537	182	57	141	901	1840	2460	130	91	617
11	247	165	537	183	55	145	1020	1730	2400	187	82	680
12	258	165	537	186	56	284	720	1650	2430	200	82	724
13	182	167	539	177	57	719	636	1690	2440	204	82	726
14	149	169	537	165	57	877	766	1940	2440	207	82	723
15	91	133	520	165	83	959	768	1870	2390	207	100	720
16	91	143	462	211	113	1020	1090	1700	2370	256	146	335
17	91	168	440	254	100	1020	1560	1810	2430	431	182	52
18	110	145	440	150	77	1020	1820	2000	2430	342	179	90
19	147	142	440	184	77	1080	1900	2110	2420	208	186	133
20	162	143	435	161	77	994	1990	2120	2430	209	279	104
21	184	189	266	91	78	990	2020	2120	2450	207	389	79
22	179	270	166	91	80	1130	2020	2130	2440	181	424	79
23	179	237	165	66	80	750	1780	2140	2440	113	430	66
24	141	169	165	45	146	130	1210	2140	2440	91	204	340
25	76	169	165	45	270	508	1370	2150	2450	89	200	675
26	52	169	165	45	272	903	1740	2160	2480	89	283	289
27	52	169	165	62	203	709	1510	2170	2520	89	695	60
28	52	296	213	86	126	545	1080	2240	2500	81	995	69
29	52	440	238	88	104	281	1080	2270	2480	74	1090	84
30	52	440	135	93	---	211	1080	2310	2520	80	843	80
31	63	---	57	89	---	211	---	2390	---	450	619	---
TOTAL	5680	5733	11412	3511	2761	15580	32701	57340	72530	12384	13197	11461
MEAN	183	191	368	113	95.2	503	1090	1850	2418	399	426	382
MAX	446	440	543	254	272	1130	2020	2390	2520	2520	1090	726
MIN	52	79	57	45	55	86	210	1070	2100	74	82	52
AC-FT	11270	11370	22640	6960	5480	30900	64860	113700	143900	24560	26180	22730

CAL YR 1983 TOTAL 259445 MEAN 711 MAX 2470 MIN 22 AC-FT 514600
WTR YR 1984 TOTAL 244290 MEAN 667 MAX 2520 MIN 45 AC-FT 484500

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to December 1974.
WATER TEMPERATURES: October 1962 to December 1974.
SUSPENDED-SEDIMENT DISCHARGES: October 1962 to December 1974.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SPECIFIC CONDUCTANCE (UMHOS) (00095)	TEMPERATURE (DEC C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT 27...	1345	327	15.0	196	--	--	--	97	--	--	--	--
NOV 25...	1500	316	3.5	39	--	--	--	--	--	--	--	--
DEC 19...	1310	313	3.5	14	--	--	--	--	--	--	--	--
JAN 30...	1345	389	4.5	12	--	--	--	--	--	--	--	--
MAR 15...	1815	357	2.0	6	--	--	--	--	--	--	--	--
APR 30...	1440	386	9.0	27	--	--	--	--	--	--	--	--
JUN 12...	1230	249	11.5	52	--	--	--	72	--	--	--	--
JUL 24...	1720	261	12.0	76	71	86	86	87	87	89	89	89
SEP 06...	1100	323	16.0	87	--	--	--	100	--	--	--	--

08289000 RIO OJO CALIENTE AT LA MADERA, NM

LOCATION.--Lat 36°20'59", long 106°02'37", in NW¼NE¼ sec.1, T.24 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, on left bank 400 ft upstream from bridge on State Highway 96, 2.4 mi south of La Madera, 2.6 mi downstream from confluence of Rio Vallecitos and Rio Tusas, 3.1 mi north of Ojo Caliente, and at mile 19.9.

DRAINAGE AREA.--419 mi^2.

PERIOD OF RECORD.--April 1932 to current year.

REVISED RECORDS.--WSP 1712: 1959.

GAGE.--Water-stage recorder. Datum of gage is 6,358.84 ft National Geodetic Vertical Datum of 1929. Prior to Apr. 23, 1934, at site about 2.6 mi upstream at different datum. Apr. 23, 1934 to Apr. 21, 1936, at datum 12.58 ft lower and Apr. 22, 1936 to Oct. 26, 1956, at datum 13.84 ft lower, both at site 1,400 ft downstream.

REMARKS.--Records good. Diversion above station for irrigation of about 3,500 acres, 1962 determination. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years, 67.7 ft^3/s, 49,050 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft^3/s Apr. 21, 1958, gage height, 6.42 ft, from rating curve extended above 1,300 ft^3/s; maximum gage height, 7.25 ft, from floodmarks, June 19, 1966; minimum discharge, 0.2 ft^3/s Aug. 17, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 21, 1958, may have been exceeded by a flood in May 1920, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,310 ft^3/s at 1310 hours May 13, no other peak above base of 600 ft^3/s; minimum, 5.1 ft^3/s Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	20	24	25	27	61	175	106	19	10	11
2	12	13	22	24	25	27	55	234	106	25	10	10
3	12	14	22	22	26	28	53	285	95	15	12	9.7
4	12	13	22	24	26	29	52	430	93	13	11	9.3
5	11	13	19	25	26	26	58	499	93	12	9.2	8.5
6	11	13	16	25	26	26	77	555	157	12	8.7	7.9
7	11	15	19	25	27	26	96	561	101	10	9.2	7.5
8	11	15	21	24	27	28	102	566	84	11	9.8	6.7
9	12	16	21	24	27	29	139	623	67	10	9.6	6.9
10	12	16	21	24	27	31	107	714	55	10	8.4	7.1
11	11	16	21	24	26	31	125	817	47	12	7.7	6.8
12	11	16	22	24	25	30	103	938	39	10	8.0	6.7
13	11	16	18	23	26	34	123	942	34	9.9	13	6.5
14	11	17	18	24	28	35	154	880	29	9.7	20	5.9
15	11	17	20	24	27	39	183	889	26	9.1	10	6.5
16	11	16	20	23	26	42	221	869	27	8.8	11	7.0
17	11	17	20	24	26	42	268	712	24	13	10	6.8
18	11	18	22	23	25	43	359	556	21	10	8.9	6.2
19	11	20	21	24	25	38	391	499	23	8.9	9.7	6.2
20	11	18	22	23	23	38	327	456	21	8.4	21	6.5
21	11	20	22	23	25	46	244	460	22	7.4	44	6.7
22	11	19	22	23	26	57	210	447	20	7.0	21	6.2
23	11	18	23	23	26	52	202	403	17	6.7	17	6.8
24	11	17	21	23	25	48	274	355	16	8.8	16	6.9
25	11	20	21	24	26	54	408	305	17	7.6	18	7.3
26	11	20	24	25	27	52	315	248	16	7.0	16	7.0
27	12	18	24	26	25	58	226	206	16	7.6	17	7.5
28	12	18	24	26	25	48	193	173	16	8.0	13	7.0
29	12	19	19	25	26	50	177	147	15	8.2	18	7.0
30	12	19	21	25	---	55	151	125	14	8.0	16	6.5
31	12	---	23	25	---	48	---	108	---	9.9	12	---
TOTAL	350	499	651	745	750	1217	5454	15177	1417	323.0	425.2	218.6
MEAN	11.3	16.6	21.0	24.0	25.9	39.3	182	490	47.2	10.4	13.7	7.29
MAX	12	20	24	26	28	58	408	942	157	25	44	11
MIN	10	12	16	22	23	26	52	108	14	6.7	7.7	5.9
AC-FT	694	990	1290	1480	1490	2410	10820	30100	2810	641	843	434

CAL YR 1983 TOTAL 35027.9 MEAN 96.0 MAX 867 MIN 6.4 AC-FT 69480
WTR YR 1984 TOTAL 27226.8 MEAN 74.4 MAX 942 MIN 5.9 AC-FT 54000

08290000 RIO CHAMA NEAR CHAMITA, NM

LOCATION.--Lat 36°04'26", long 106°06'40", in NE¼NE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, in San Juan Pueblo Grant, at downstream end of pier nearest left bank of bridge on U.S. Highway 285, 0.5 mi west of Chamita, 2.5 mi northwest of San Juan Pueblo, and at mile 2.8.

DRAINAGE AREA.--3,144 mi^2, of which about 100 mi^2 is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as Chama River near Chamita prior to 1928, and Chama River at Chamita 1929-30.

REVISED RECORDS.--WSP 1512: 1913-15, 1934, 1936. WSP 1632: 1929(M). WSP 1732: 1931(M). WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Jan. 1, 1964. Datum of gage is 5,653.61 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1933, at railroad bridge 2.3 mi downstream at different datums. Oct. 4, 1933 to Mar. 1, 1942, at site 50 ft downstream at datum 0.22 ft higher. Mar. 2, 1942 to Dec. 31, 1963, at site 200 ft downstream, present datum.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 27,600 acres. Chamita ditch (station 08289500), on left bank, and Hernandez ditch (station 08289800), on right bank, bypass gage for irrigation of several hundred acres below station; see tabulation below for monthly diversion during irrigation season. Flow regulated by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900), 74.9 mi and 29.3 mi upstream respectively. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi upstream. National Weather Service gage- height telemeter at station.

AVERAGE DISCHARGE.--58 years (water years 1913-70), 541 ft^3/s, 392,000 acre-ft/yr, prior to release of transmountain water.
14 years (water years 1971-84), 540 ft^3/s, 391,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft^3/s May 22, 1920, from rating curve extended above 2,300 ft^3/s; maximum gage height, 10.45 ft Aug. 22, 1961; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft^3/s. Another major flood occurred in 1884, from newspaper accounts.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,840 ft^3/s June 18, gage height, 7.29 ft; minimum, 35 ft^3/s July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	64	483	137	127	134	264	1230	2150	2320	794	520
2	381	70	559	128	128	135	273	1300	2340	2440	919	470
3	383	73	564	126	126	132	584	1350	2170	2200	900	470
4	443	145	566	141	112	126	621	1570	2160	186	819	475
5	350	224	554	150	100	124	839	1850	2300	107	812	457
6	241	232	540	153	99	123	416	1960	2440	110	841	99
7	222	238	490	133	98	122	550	2310	2400	102	629	115
8	183	133	241	125	99	156	567	2790	2440	88	164	479
9	177	141	238	124	97	168	659	2960	2420	83	82	482
10	172	123	527	187	101	170	946	2950	2370	74	66	487
11	167	145	553	215	100	172	1160	2900	2300	93	61	515
12	263	156	552	221	98	172	995	2930	2220	142	58	535
13	177	161	548	217	97	539	651	2830	2320	142	57	612
14	163	161	548	204	102	832	887	2870	2300	142	348	641
15	106	162	555	200	103	924	932	3070	2270	149	227	648
16	76	123	490	197	126	1070	1120	2770	2270	154	131	655
17	76	176	454	289	140	1090	1870	2680	2320	302	123	577
18	76	157	457	286	123	1090	2510	2580	2600	640	151	127
19	95	153	456	172	112	1120	2650	2590	2390	241	135	64
20	122	151	460	165	113	1170	2780	2530	2370	190	232	104
21	134	154	416	158	113	920	2700	2540	2410	181	483	121
22	143	253	211	145	113	1230	2630	2550	2370	163	362	97
23	141	274	211	138	115	1200	2540	2490	2320	117	522	88
24	138	197	201	125	112	252	1780	2420	2340	70	313	67
25	99	184	[illegible]	124	225	213	1770	2390	2360	58	344	76
26	69	186	213	117	266	1010	2340	2290	2390	55	308	608
27	47	182	215	114	261	816	2140	2250	2420	50	463	532
28	48	193	232	118	172	675	1330	2240	2410	47	824	104
29	49	426	305	120	138	428	1300	2240	2390	40	1020	94
30	50	448	288	128	---	273	1240	2240	2420	55	918	103
31	56	---	159	126	---	265	---	2270	---	113	589	---
TOTAL	5230	5485	12480	4983	3716	16851	41044	73940	70380	10854	13695	10422
MEAN	169	183	403	161	128	544	1368	2385	2346	350	442	347
MAX	443	448	566	289	266	1230	2780	3070	2600	2440	1020	655
MIN	47	64	159	114	97	122	264	1230	2150	40	57	64
AC-FT	10370	10880	24750	9880	7370	33420	81410	146700	139600	21530	27160	20670
(†)	215	---	---	---	---	---	500	940	1060	1400	522	833
(††)	619	---	---	---	---	---	830	1340	980	888	645	510

CAL YR 1983 TOTAL 292997 MEAN 803 MAX 3250 MIN 33 AC-FT 581200
WTR YR 1984 TOTAL 269080 MEAN 735 MAX 3070 MIN 40 AC-FT 533700

(†) DIVERSION, IN ACRE-FEET, BY CHAMITA DITCH
(††) DIVERSION, IN ACRE-FEET, BY HERNANDEZ DITCH

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to December 1974.
WATER TEMPERATURES: October 1950 to December 1974.
SUSPENDED-SEDIMENT DISCHARGES: October 1947 to December 1974.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 28...	1100	46	486	10.0	118	15	94
NOV 22...	1550	26	404	6.0	98	6.9	--
DEC 20...	1345	464	382	4.5	59	74	--
JAN 30...	1745	128	467	5.0	87	30	--
MAR 13...	1300	517	399	5.5	544	759	43
MAY 03...	1500	1360	348	8.0	98	360	--
JUN 12...	1800	2270	261	15.0	186	1140	35
SEP 13...	1100	605	311	18.0	149	243	--

DIVERSIONS FROM RIO CHAMA

During the irrigation season records of discharge are collected on all 17 ditches and 2 pumps which divert from Rio Chama below El Vado Dam. All sites are located in Hydrologic Unit 13020102. All measuring devices consist of totalizing type flowmeters. All ditches are also equipped with Parshall flumes. In most cases meters on ditches are located below the most downstream wasteway and above any irrigated land. Flows tabulated represent water that is delivered to each ditch or portion thereof and may include waste water from another ditch. No attempt is made to credit for water returned to Rio Chama or delivered to another ditch.

08286300 MONASTERY PUMP NEAR ALIRE, NM.--Lat 36°22'45", long 106°40'55", in SE¼SW¼, sec.24, T.25 N., R.2 E., Rio Arriba County, in Santa Fe National Forest, totalizing flowmeter on discharge pipe of pump on left bank of Rio Chama, at Christ of the Desert Monastery, 8.8 mi southwest of Alire, and 24 mi northwest of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287020 ABEYTA TRUJILLO DITCH NEAR ABIQUIU, NM.--Lat 36°14'03", long 106°23'22", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank 0.9 mi downstream from heading located on left bank of Rio Chama, and 4.5 mi northeast of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287040 WINFIELD MORTON PUMP NEAR ABIQUIU, NM.--Lat 36°12'40", long 106°20'48", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter on discharge pipe of pump on left bank of Jose Pablo Gonzales ditch 700 ft downstream from ditch heading located on left bank of Rio Chama, and 1.4 mi west of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287060 JOSE PABLO GONZALES DITCH NEAR ABIQUIU, NM.--Lat 36°12'25", long 106°20'35", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on left bank 0.5 mi downstream from Winfield Morton pump, 0.6 mi downstream from heading located on left bank of Rio Chama, and 1.2 mi west of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287150 GONZALES DITCH AT ABIQUIU, NM.--Lat 36°12'46", long 106°19'16", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on right bank 0.2 mi downstream from heading located on right bank of Rio Chama, and 0.4 mi northwest of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287200 LA PUENTE DITCH NEAR ABIQUIU, NM.--Lat 36°12'52", long 106°16'27", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 100 ft downstream from culvert on U.S. Highway 84, 0.4 mi downstream from heading located on right bank of Rio Chama, and 2.3 mi east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287250 QUINTANA DITCH NEAR ABIQUIU, NM.--Lat 36°12'55", long 106°16'26", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 100 ft upstream from culvert on U.S. Highway 84, 0.2 mi downstream from heading located on right bank of Rio Chama, and 2.6 mi east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287270 VALENTINE MARTINEZ DITCH NEAR ABIQUIU, NM.--Lat 36°12'55", long 106°16'12", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank on north side of U.S. Highway 84, 0.2 mi downstream from heading located on left bank of Quintana ditch (station 08287250), and 2.8 mi east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287300 MARIANO DITCH NEAR ABIQUIU, NM.--Lat 36°13'05", long 106°16'09", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.5 mi downstream from heading located on left bank of Rio Chama, and 2.9 mi east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287400 FERRAN DITCH NEAR ABIQUIU, NM.--Lat 36°12'57", long 106°14'34", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank just downstream from siphon, 40 ft upstream from forest boundary, 0.2 mi downstream from culvert on State Highway 96, 0.4 mi downstream from tail of Mariano ditch (station 08287300), 0.9 mi downstream from heading located on left bank of Rio Chama, and 4.4 mi east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287600 TIERRA AZUL DITCH NEAR MEDANALES, NM.--Lat 36°12'06", long 106°14'11", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 1.1 mi downstream from heading located on right bank of Rio Chama, and 3.5 mi northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288050 JOSE V. MARTINEZ DITCH NEAR MEDANALES, NM.--Lat 36°11'44", long 106°13'39", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.1 mi downstream from heading located on left bank of Rio Chama, and 2.9 mi northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288100 MANZANARES AND MONTOYA DITCH NEAR MEDANALES, NM.--Lat 36°11'13", long 106°12'35", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 0.2 mi downstream from heading located on right bank of Rio Chama, and 1.7 mi northeast of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288150 RIO DE CHAMA DITCH NEAR MEDANALES, NM.--Lat 36°11'13", long 106°12'02", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.5 mi downstream from tail of Jose V. Martinez ditch (station 08288050), 0.7 mi downstream from heading located on left bank of Rio Chama, and 1.3 mi northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

DIVERSIONS FROM RIO CHAMA --Continued

08288200 MARTINEZ AND DURANES DITCH (UPPER) NEAR MEDANALES, NM.--Lat 36°10'55", long 106°11'59", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 300 ft downstream from tail of Manazanares and Montoya ditch (station 08288100), 0.7 mi downstream from heading located on right bank of Rio Chama, and 1.1 mi northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288250 MARTINEZ AND DURANES DITCH (LOWER) NEAR MEDANALES, NM.--Lat 36°09'26", long 106°10'24", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 0.9 mi downstream from culvert on State Highway 233, 1.4 mi south of Medanales, 2.5 mi downstream from "upper" gage (station 08288200), and 3.2 mi downstream from heading located on right bank of Rio Chama. PERIOD OF RECORD, April 1972 to current year.

08288300 CHILE DITCH NEAR HERNANDEZ, NM.--Lat 36°07'00", long 106°09'11", in SW¼SW¼ sec.24, T.22 N., R.7 E., Rio Arriba County, totalizing flowmeter and Parshall flume on left bank, 0.4 mi downstream from heading located on right bank of Rio Chama, 0.5 mi upstream from siphon under Rio del Oso, and 4.1 mi northwest of Hernandez. PERIOD OF RECORD, April 1972 to current year.

08289500 CHAMITA DITCH NEAR CHAMITA, NM.--Lat 36°04'57", long 106°06'54", in SW¼NE¼ sec.5, T.21 N., R.8 E., in Rio Arriba County, in San Juan Pueblo Grant, totalizing flowmeter and Parshall flume on left bank 30 ft upstream from flume over Arroyo de la Penita, 0.7 mi downstream from heading located on left bank of Rio Chama, and 1.0 mi northwest of Chamita. PERIOD OF RECORD, March 1936 to April 1941, February 1963 to current year (records furnished by Bureau of Reclamation August 1966 to December 1972).

08289800 HERNANDEZ DITCH AT HERNANDEZ, NM.--Lat 36°04'52", long 106°07'16", Rio Arriba County, in Bartolome Sanchez Grant, totalizing flowmeter and Parshall flume on right bank 0.7 mi downstream from heading located on right bank of Rio Chama, 1.1 mi north of Hernandez, and 1.3 mi northwest of Chamita. PERIOD OF RECORD, March 1963 to current year (records furnished by Bureau of Reclamation July 1965 to December 1971).

08290100 SALAZAR DITCH AT HERNANDEZ, NM.--Lat 36°03'44", long 106°06'31", in SE¼SE¼ sec.8, T.21 N., R.8 E., Rio Aribba County, in San Juan Pueblo Grant, totalizing flowmeter and Parshall flume on right bank 0.1 mi downstream from heading located on right bank of Rio Chama, and 0.6 mi east of Hernandez. PERIOD OF RECORD, April 1972 to current year.

DIVERSIONS FROM RIO CHAMA, IN ACRE-FEET, IRRIGATION SEASON 1983

	Diversion	APR	MAY	JUN	JUL	AUG	SEP	OCT
08286300	Monastery pump	.3	.9	.7	.8	.1	.4	0
08287020	Abeyta Trujillo ditch	a280	361	275	a400	a180	a140	a0
08287040	Winfield Morton Pump	0	0	0	0	0	0	0
08287060	Jose Pablo Gonzales ditch	906	328	319	247	669	a1070	365
08287150	Gonzales ditch	3.5	a30	a170	a300	a130	a50	a50
08287200	La Puente ditch	54.6	238	231	485	218	a120	9.0
08287250	Quintana ditch	a.46	53	a36	13.4	22.7	349	1.7
08287270	Valentine Martinez ditch	a16	a16	29	28.1	25.6	a9.0	22.1
08287300	Mariano ditch	52.8	327	206	235	46.9	119	25.8
08287400	Ferran ditch	133	129	a70	23.5	12.4	0	10
08287600	Tierra Azul ditch	a370	a700	a570	a640	a500	a115	a0
08288050	Jose V. Martinez ditch	51.5	205	132	27.7	87.9	98.3	234
08288100	Manzanares and Montoya ditch	18.7	80	48.2	a110	26.9	24.6	4.5
08288150	Rio de Chama ditch	a410	a640	a1090	a1000	a490	a430	121
08288200	Martinez and Duranes ditch (upper)	922	1311	1240	782	a1130	a640	6.3
08288250	Martinez and Duranes ditch (lower)	68.6	422	534	328	437	291	122
08288300	Chili ditch	a500	a590	a620	a580	a480	a300	a470
08289500	Chamita ditch	500	a940	1060	1400	522	883	a930
08289800	Hernandez ditch	a830	a1340	980	888	645	a510	788
08290100	Salazar ditch	246	a570	469	a1020	a430	780	228

a Estimated

08291000 SANTA CRUZ RIVER AT CUNDIYO, NM

LOCATION.--Lat 35°57'53", long 105°54'14", in SE¼NW¼ sec.17, T.20 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, on left bank 135 ft downstream from bridge on State Highway 4, 200 ft downstream from confluence of Rio Medio and Rio Frijoles, 0.6 mi northwest of Cundiyo, 1.8 mi upstream from Santa Cruz Dam, and at mile 11.9.

DRAINAGE AREA.--86 mi^2, approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only from some periods, published in WSP 1312. Prior to October 1953, published as Rio Santa Cruz at Cundiyo.

REVISED RECORDS.--WSP 1392: 1931(M), 1932-33, 1934-39(M), 1942, 1943(M).

GAGE.--Water-stage recorder. Concrete control since Jan. 3, 1954. Altitude of gage is 6,460 ft, from topographic map. Sept. 1, 1930 to Aug. 12, 1932, water-stage recorder at site about 1 mi downstream at different datum. Aug. 13, 1932 to Oct. 29, 1934, water-stage recorder at site 35 ft upstream at datum 0.42 ft higher. Oct. 30, 1934 to Jau. 2, 1954, water-stage recorder at present site at datum 0.64 ft lower.

REMARKS.--Records good except those for winter period, which are fair. Diverions for irrigation of about 1,000 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--54 years, 29.5 ft^3/s, 21,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft^3/s Sept. 24, 1931, gage height, 7.8 ft, site and datum then in use, from rating curve extended above 170 ft^3/s; minimum, 0.19 ft^3/s Mar. 13, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 25	2100	344	3.08	Aug. 19	1915	173	2.64
July 16	1530	*1260	4.85	Aug. 23	2145	151	2.58
Aug. 7	0345	100	2.36				

Minimum discharge, 2.5 ft^3/s Dec. 28, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	14	14	12	12	11	51	100	208	48	25	41
2	33	13	16	12	12	11	45	95	207	45	30	40
3	26	13	14	10	13	11	41	100	200	50	34	38
4	23	14	14	12	13	11	46	126	184	42	39	32
5	22	14	13	13	13	10	66	137	179	39	36	32
6	22	14	10	14	14	10	86	146	171	39	30	29
7	21	13	11	15	15	13	88	152	153	36	68	30
8	21	14	12	15	13	12	82	149	142	32	47	27
9	24	13	14	15	15	11	83	153	131	32	36	24
10	21	14	14	13	13	11	78	176	121	31	35	23
11	20	15	14	12	12	12	89	222	114	31	36	24
12	19	14	13	13	12	12	81	212	107	36	40	23
13	18	14	12	13	13	13	80	235	105	32	46	22
14	18	14	12	12	12	15	86	240	109	30	46	22
15	17	11	14	12	11	18	90	251	111	26	61	21
16	17	13	13	12	12	23	94	224	97	71	64	22
17	17	13	13	12	11	26	107	212	95	86	55	23
18	17	14	13	9.5	11	28	123	217	91	63	48	24
19	16	9.0	14	10	11	28	129	199	90	31	54	21
20	19	16	12	10	10	29	119	185	90	8.2	87	21
21	19	16	11	10	9.0	35	96	199	82	11	58	22
22	18	12	12	10	10	41	83	207	77	25	54	22
23	17	12	13	10	10	38	76	217	72	23	82	18
24	16	12	12	11	11	35	80	259	68	21	95	18
25	16	13	10	11	11	42	92	270	65	24	84	15
26	16	14	13	11	10	39	94	254	62	21	74	26
27	15	14	13	11	10	37	83	238	63	20	66	29
28	16	14	7.9	10	11	33	78	239	57	22	61	23
29	14	12	9.0	9.9	11	41	86	245	55	25	55	21
30	14	13	9.5	10	---	45	95	229	51	23	53	20
31	14	---	10	11	---	44	---	215	---	29	46	---
TOTAL	591	401.0	382.4	361.4	341.0	745	2527	6103	3357	1052.2	1645	753
MEAN	19.1	13.4	12.3	11.7	11.8	24.0	84.2	197	112	33.9	53.1	25.1
MAX	33	16	16	15	15	45	129	270	208	86	95	41
MIN	14	9.0	7.9	9.5	9.0	10	41	95	51	8.2	25	15
AC-FT	1170	795	758	717	676	1480	5010	12110	6660	2090	3260	1490

CAL YR 1983 TOTAL 20474.1 MEAN 56.1 MAX 269 MIN 7.9 AC-FT 40610
WTR YR 1984 TOTAL 18259.0 MEAN 49.9 MAX 270 MIN 7.9 AC-FT 36220

BEST COPY AVAILABLE

08294200 NAMBE FALLS RESERVOIR NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¼SW¼, sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, 300 ft upstream from Nambe Falls, 2.6 mi upstream from Rio En Medio, 4.4 mi southeast of Nambe Pueblo, and 5.4 mi southeast of Nambe.

DRAINAGE AREA.--34.1 mi^2.

PERIOD OF RECORD.--February 1976 to current year.

REVISED RECORDS.--WDR NM-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 22, 1976, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by a concrete arch and earthfill dam, storage began Feb. 23, 1976. Total capacity, 2,020 acre-ft at elevation 6,826.6 ft, crest of ogee weir spillway, including 237 acre-ft of storage in a permanent pool between elevation 6,760.9 ft, invert of outlet conduits, and 6,780.0 ft. Dead storage 121 acre-ft below elevation 6,760.9 ft. Outlet conduits are one 6-in and two 12-in diameter pipes. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,060 acre-ft June 9, 1979, elevation, 6,827.24 ft; no storage prior to Feb. 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,040 acre-ft May 12 to June 2, maximum elevation, 6,826.92 ft May 16; minimum, 1,130 acre-ft Sept. 30, elevation 6,807.70 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1976)

6,815	1,420	6,825	1,930
6,820	1,660	6,830	2,230

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	1960	1950	1960	1960	1940	2020	2030	2040	2020	1440	1540
2	1960	1960	1950	1960	1960	1940	2020	2020	2040	2020	1420	1540
3	1960	1960	1950	1960	1960	1950	2020	2030	2030	2000	1400	1540
4	1960	1960	1960	1950	1960	1950	2020	2030	2030	1960	1390	1540
5	1960	1960	1960	1950	1960	1950	2020	2030	2030	1920	1390	1540
6	1960	1960	1960	1940	1960	1950	2020	2030	2030	1860	1380	1530
7	1960	1960	1960	1930	1960	1950	2020	2030	2030	1800	1380	1530
8	1960	1960	1970	1930	1950	1950	2020	2030	2030	1740	1370	1520
9	1960	1970	1970	1930	1950	1950	2020	2030	2030	1680	1370	1520
10	1960	1970	1960	1930	1950	1950	2020	2030	2030	1640	1370	1510
11	1960	1960	1960	1930	1950	1950	2020	2030	2030	1610	1370	1500
12	1960	1960	1950	1930	1950	1950	2020	2040	2030	1580	1370	1500
13	1960	1960	1950	1940	1950	1950	2020	2040	2030	1560	1370	1490
14	1960	1960	1950	1940	1950	1950	2020	2040	2030	1550	1370	1480
15	1960	1960	1960	1940	1950	1960	2030	2040	2030	1540	1380	1480
16	1960	1960	1960	1940	1950	1960	2030	2040	2030	1540	1380	1470
17	1960	1960	1960	1940	1950	1960	2030	2040	2030	1530	1380	1460
18	1960	1960	1960	1950	1950	1960	2030	2040	2030	1530	1380	1430
19	1960	1960	1960	1960	1950	1970	2030	2040	2030	1530	1370	1400
20	1960	1960	1960	1970	1950	1980	2030	2040	2030	1520	1380	1350
21	1960	1960	1960	1970	1950	1980	2030	2040	2030	1520	1390	1320
22	1960	1960	1960	1980	1950	1990	2030	2040	2030	1520	1400	1310
23	1960	1960	1960	1980	1950	2000	2030	2040	2030	1510	1410	1300
24	1960	1960	1970	1980	1950	2010	2030	2040	2030	1510	1430	1270
25	1960	1960	1970	1980	1950	2020	2030	2040	2030	1510	1450	1240
26	1960	1960	1970	1980	1950	2020	2030	2040	2030	1510	1470	1210
27	1960	1960	1980	1980	1950	2020	2030	2040	2030	1510	1490	1180
28	1960	1960	1980	1980	1940	2020	2030	2040	2030	1490	1510	1160
29	1960	1960	1980	1990	1940	2020	2030	2040	2030	1480	1530	1140
30	1970	1960	1980	1980	---	2020	2030	2040	2030	1470	1540	1130
31	1970	---	1970	1970	---	2020	---	2040	---	1450	1540	---
MAX	1970	1970	1980	1990	1960	2020	2030	2040	2040	2020	1540	1540
MIN	1960	1960	1950	1930	1940	1940	2020	2020	2030	1450	1370	1130
(†)	6825.62	6825.49	6825.70	6825.68	6825.21	6826.63	6826.65	6826.83	6826.66	6815.70	6817.52	6808.18
(††)	+10	-10	+10	0	-30	+80	+10	+10	-10	-580	+90	-410

CAL YR 1983 MAX 2050 MIN 1910 (††) -280
WTR YR 1984 MAX 2040 MIN 1130 (††) -830

(†) ELEVATION, IN FEET, AT END OF MONTH.
(††) CHANGE IN CONTENTS, IN ACRE-FEET

08294210 RIO NAMBE BELOW NAMBE FALLS DAM, NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, in outlet conduits of Nambe Falls Dam, 300 ft upstream from Nambe Falls, 2.6 mi upstream from Rio En Medio, 4.4 mi southeast of Nambe Pueblo and 5.4 mi southeast of Nambe.

DRAINAGE AREA.--34.1 mi^2.

PERIOD OF RECORD.--January 1979 to current year.

GAGE.--Totalizing flowmeters in each of three outlet conduits in Nambe Falls Dam.

REMARKS.--Flow regulated by Nambe Falls Reservoir (station 08294200). Outlet conduits are one 6-in and two 12-in diameter pipes. During periods of spill at Nambe Falls Dam, record computed at site 1,100 ft downstream, site of discontinued station 08294300, Rio Nambe at Nambe Falls.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 312 ft^3/s June 9, 1979, gage height, 1.96 ft at site 1,100 ft downstream (maximum release and spill computed at Nambe Falls Dam, 250 ft^3/s, June 9, 1979); minimum daily discharge, 0.13 ft^3/s May 3, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 111 ft^3/s May 16; minimum daily , 0.56 ft^3/s Jan. 19-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.2	7.9	8.1	6.1	2.3	10	24	69	24	16	7.6
2	10	7.2	5.5	8.1	3.9	2.3	11	23	71	27	16	7.7
3	11	7.1	4.0	8.1	3.9	2.3	12	24	65	33	16	7.7
4	9.7	6.9	4.0	7.2	3.9	2.3	13	28	70	38	16	8.9
5	9.7	6.8	4.0	6.1	3.9	2.3	13	31	61	38	16	10
6	10	6.8	4.0	6.1	5.1	2.3	14	34	60	36	15	10
7	8.5	5.8	4.0	6.1	5.4	2.3	15	35	51	34	12	10
8	7.4	3.7	4.0	6.0	5.3	2.3	15	35	50	34	9.5	10
9	8.8	3.1	5.9	4.5	4.6	2.3	15	40	45	34	9.5	10
10	10	4.7	7.6	3.0	4.6	2.3	15	50	44	34	8.5	10
11	9.8	5.7	7.6	3.0	4.6	2.3	16	58	44	36	7.7	10
12	8.5	5.7	5.8	3.0	4.6	2.3	14	74	42	36	7.8	10
13	8.0	5.7	4.0	3.0	3.8	2.3	16	83	41	23	7.7	10
14	7.9	4.1	4.0	3.0	3.0	2.3	17	89	42	15	7.7	9.4
15	8.0	3.5	4.0	3.0	3.0	2.3	19	101	44	15	7.7	8.8
16	8.0	5.3	4.0	2.0	2.8	2.3	22	111	39	15	7.7	8.8
17	7.4	6.4	4.0	1.0	2.6	2.3	26	98	37	12	8.7	13
18	6.7	4.9	4.0	.80	2.6	2.3	32	93	33	11	9.8	20
19	4.9	4.0	4.0	.56	2.6	2.3	35	91	30	11	9.8	23
20	7.1	4.0	4.1	.56	2.6	2.3	37	85	32	9.3	9.8	28
21	7.6	6.0	4.1	.56	2.6	2.3	29	87	29	11	7.6	25
22	5.2	7.2	4.1	.56	2.6	2.3	26	87	27	11	5.6	10
23	5.2	6.7	4.1	2.3	2.6	2.3	24	87	26	9.7	4.8	10
24	7.5	6.4	4.1	3.9	3.9	2.4	24	101	25	9.0	2.8	19
25	7.4	4.5	4.1	4.0	5.1	2.4	29	104	25	7.4	2.2	25
26	6.2	3.4	4.1	4.1	5.1	2.5	32	98	27	5.9	2.1	23
27	5.1	3.4	4.1	4.1	5.1	2.5	26	96	29	10	2.1	20
28	4.3	3.8	4.1	4.0	3.7	1.4	28	91	29	16	2.1	16
29	4.3	4.0	4.1	4.1	2.3	1.8	24	87	26	16	2.1	15
30	4.3	6.5	6.1	6.4	---	2.2	23	81	25	16	4.9	15
31	6.2	---	8.1	8.3	---	4.8	---	78	---	16	7.6	---
TOTAL	234.7	160.5	147.5	125.54	111.9	72.9	632	2204	1238	643.3	262.8	410.9
MEAN	7.57	5.35	4.76	4.05	3.86	2.35	21.1	71.1	41.3	20.8	8.48	13.7
MAX	11	7.2	8.1	8.3	6.1	4.8	37	111	71	38	16	28
MIN	4.3	3.1	4.0	.56	2.3	1.4	10	23	25	5.9	2.1	7.6
AC-FT	466	318	293	249	222	145	1250	4370	2460	1280	521	815

CAL YR 1983 TOTAL 9325.28 MEAN 25.5 MAX 109 MIN .60 AC-FT 18500
WTR YR 1984 TOTAL 6244.04 MEAN 17.1 MAX 111 MIN .56 AC-FT 12390

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM

(National stream-quality accounting network, surveillance network, and radiochemcial network station)

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¼SW¼ sec.18, T.19 N., R.8 E., Santa Fe County, Hydrologic Unit 13020101, in San Ildefonso Pueblo Grant, near right bank on downstream end of pier of former railway bridge, 400 ft downstream from bridge on State Highway 4, 1.8 mi southwest of San Ildefonso Pueblo, 2.5 mi downstream from Pojoaque River, 6.8 mi west of Pojoaque, and at mile 1,614.2.

DRAINAGE AREA.--14,300 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to December 1905, June 1909 to current year. Monthly discharge only for some periods, published in WSP 1312. In early reports this record was published as "at Water Tank," as "at Rio Grande," and as "near Buckman."

REVISED RECORDS.--WSP 828: Drainage area. WSP 1512: 1895-99, 1904-6, 1911-12, 1914, 1931(M), 1935. WSP 1712: 1904(M).

GAGE.--Water-stage recorder. Datum of gage is 5,488.48 ft National Geodetic Vertical Datum of 1929. See WSP 1312, 1732, or 1923 for history of changes prior to June 1, 1910.

REMARKS.--Water-discharge records good. Considerable regulation by Heron Reservoir (station 08284510), El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900) on Rio Chama, which can contribute a major portion of the total flow. Flow affected by release of transmountain water from Heron Reservoir since May 1971. Diversions above station for irrigation of about 620,000 acres in Colorado and 75,000 acres in New Mexico. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft^3/s May 23, 1920; maximum gage height, 14.5 ft Sept. 29, 1904, present site and datum; minimum daily discharge, 60 ft^3/s July 4, 5, 1902.

EXTREMES OUTSIDE PERIOD OF RECORD.--The 1920 flood is greatest since at least 1884 and probably since 1741; information from W. H. Yeo's file on floods.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 17	1030	*9790	8.87	June 18	2215	5770	6.92

Minimum discharge, 342 ft^3/s Oct. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	795	409	940	768	682	751	1470	3080	7680	3480	934	1030
2	766	431	1090	747	688	761	1450	3120	7330	3460	1180	993
3	763	456	1160	670	690	763	1780	3120	6950	3300	1250	955
4	801	520	1180	669	686	761	1800	3250	6730	2010	1190	915
5	732	640	1160	736	666	714	2090	3550	6230	1220	1190	854
6	658	643	1130	766	662	732	1710	3820	5970	1020	1250	463
7	622	650	1140	747	669	699	1900	4360	5450	926	1110	404
8	558	562	878	730	681	772	1950	5060	5100	831	689	775
9	553	535	870	734	678	820	2090	5360	4670	754	489	841
10	541	539	1110	792	693	827	2390	5650	4390	734	491	846
11	517	533	1200	847	698	845	2700	6090	4060	781	511	859
12	598	563	1220	856	689	844	2610	6740	3870	843	461	873
13	545	561	1220	850	681	1130	2240	7260	3740	868	507	930
14	500	570	1210	849	703	1590	2490	7730	3710	864	548	966
15	459	579	1220	838	723	1680	2580	8540	3790	804	908	970
16	411	540	1170	808	735	1840	2730	8840	3770	782	554	977
17	412	555	1090	787	756	1970	3540	9450	3950	880	491	986
18	428	567	1100	770	764	2040	4290	9030	4210	1130	520	596
19	438	581	1110	573	722	2100	4660	8590	4380	1020	527	541
20	487	576	1110	632	741	2240	4850	7990	4200	833	694	532
21	511	563	1120	588	718	1990	4890	7660	3930	755	851	486
22	528	677	851	598	730	2350	4770	7470	3740	717	795	436
23	497	753	865	612	740	2480	4620	7680	3700	654	1120	415
24	496	640	855	602	730	1600	3930	8340	3780	558	826	407
25	452	588	842	583	829	1490	3760	8990	3890	517	856	372
26	396	623	866	674	933	2400	4440	8840	3830	484	894	850
27	369	598	895	669	914	2310	4310	8660	3740	430	1020	1020
28	374	570	962	675	812	2060	3440	8460	3790	389	1470	496
29	379	783	940	691	763	1760	3220	8070	3760	379	1640	436
30	368	870	837	685	---	1520	3090	7860	3700	377	1630	439
31	372	---	778	683	---	1480	---	7720	---	384	1150	---
TOTAL	16326	17675	32119	22229	21176	45319	91790	210380	138040	32184	27746	21663
MEAN	527	589	1036	717	730	1462	3060	6786	4601	1038	895	722
MAX	801	870	1220	856	933	2480	4890	9450	7680	3480	1640	1030
MIN	368	409	778	573	662	699	1450	3080	3700	377	461	372
AC-FT	32380	35060	63710	44090	42000	89890	182100	417300	273800	63840	55030	42970

CAL YR 1983 TOTAL 723924 MEAN 1983 MAX 8600 MIN 266 AC-FT 1436000
WTR YR 1984 TOTAL 676647 MEAN 1849 MAX 9450 MIN 368 AC-FT 1342000

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1946 to current year.
WATER TEMPERATURES: October 1948 to current year.
SUSPENDED-SEDIMENT DISCHARGES: October 1947 to current year.

INSTRUMENTATION.--Continuous water-temperature recorder since April, 1954. Continuous specific conductance recorder since October 1978.

REMARKS.--Daily mean temperature is computed by averaging the maximum and minimum temperatures for each day.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,310 microsiemens Aug. 5, 1963; minimum daily, 88 microsiemens May 12, 1984.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 4, 5, 1954; minimum, 0.0°C on many days during winter periods each year.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 43,500 mg/L Aug. 21, 1955; minimum daily mean, 11 mg/L July 27, 1963, and Feb. 7, 1974.
SEDIMENT LOADS: Maximum daily, 366,000 tons Aug. 23, 1961; minimum daily, 3 tons July 27, 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 440 microsiemens Aug. 1; minimum daily, 88 microsiemens May 12.
WATER TEMPERATURES: Maximum, 27.5°C July 30; minimum, 0.0°C on several days in December and January.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 18,800 mg/L Aug. 15; minimum daily mean, 23 mg/L Oct. 29.
SEDIMENT LOADS: Maximum daily, 53,400 tons Aug. 15; minimum daily, 24 tons Oct. 29, 30.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT 03...	1300	770	--	362	8.5	8.3	17.0	15.5	55	8.5
DEC 01...	1300	894	360	350	8.8	8.1	3.0	5.0	16	9.4
FEB 01...	1300	724	300	324	8.7	8.1	6.0	4.0	6.8	10.2
APR 12...	1030	2710	285	306	7.8	8.2	12.5	8.0	36	9.4
MAY 01...	1315	3140	265	274	8.1	7.9	23.0	12.0	60	9.1
JUL 02...	1500	3510	280	286	8.2	7.8	31.0	19.5	36	7.4
SEP 05...	1145	918	320	322	8.1	8.1	25.0	17.5	50	8.1

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
OCT 03...	150	42	47	7.6	20	.7	2.5	110	10	59
DEC 01...	140	27	44	7.7	20	.8	2.6	130	5.0	54
FEB 01...	120	13	38	6.9	19	.8	2.6	120	7.0	37
APR 12...	110	25	35	6.7	16	.7	2.6	110	.000	51
MAY 01...	110	27	33	6.1	12	.5	2.1	93	4.0	45
JUL 02...	110	39	33	5.8	13	.6	2.4	70	6.0	53
SEP 05...	130	25	39	6.7	16	.6	2.6	110	6.0	54

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 03...	5.9	.40	17	233	230	<.10	.010	.130	.040	<.01
DEC 01...	5.8	.40	17	232	230	<.10	.050	.060	.010	<.01
FEB 01...	6.8	.50	24	206	210	.29	.110	.020	.030	--
APR 12...	5.1	.30	17	194	190	.11	.010	.310	.090	--
MAY 01...	3.6	.30	16	159	170	<.10	.060	.060	.030	<.01
JUL 02...	3.1	.20	15	168	170	<.10	.010	.130	.030	<.01
SEP 05...	4.2	.30	1.7	215	190	<.10	<.010	.170	.050	<.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
OCT 03...	1300	10	1	85	<.5	40	<1	<1	<3	1	14	2
DEC 01...	1300	<10	1	76	.9	30	<1	1	<3	3	6	<1
FEB 01...	1300	--	--	--	--	40	--	--	--	--	12	--
APR 12...	1030	--	--	--	--	20	--	--	--	--	33	--
MAY 01...	1315	50	1	53	<.5	20	1	1	<3	6	15	2
JUL 02...	1500	10	<1	52	1.0	30	2	1	<3	5	11	<1
SEP 05...	1145	20	1	76	<1.0	30	1	<1	<3	5	9	6

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 03...	26	5	<.1	5	10	6	<1	<1	360	<6	38
DEC 01...	20	15	.2	5	<10	1	<1	<1	340	<6	8
FEB 01...	--	--	--	--	--	--	--	--	--	--	--
APR 12...	--	--	--	--	--	--	--	--	--	--	--
MAY 01...	14	7	<.1	3	<10	<1	<1	<1	2300	<6	47
JUL 02...	15	8	<.1	2	10	<1	<1	<1	230	<6	11
SEP 05...	18	6	.8	5	<10	1	<1	<1	300	<6	<3

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
DEC 01...	1300	<2.0	5.9	320	2	<1	1

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
DEC 01...	<10	2	1600	20	80	.01	9

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
DEC 01...	1300	7.9	1.3	3.7	1.7	3.2	1.5	.07	3.6
JUL 02...	1500	<4.0	4.6	3.2	5.5	2.7	4.7	.08	.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	ENDOSULFAN, TOTAL (UG/L) (39388)
OCT 03...	1300	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010
MAY 01...	1315	--	--	--	--	--	--	--	--	--
SEP 05...	1145	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALATHION, TOTAL (UG/L) (39530)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL TRITHION, TOTAL (UG/L) (39790)
OCT 03...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01
MAY 01...	--	--	--	--	--	--	--	--	--
SEP 05...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
OCT 03...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01
MAY 01...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 05...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
03...	1300	K65	200
DEC			
01...	1300	1800	K0
FEB			
01...	1300	30	25
APR			
12...	1030	K16	110
MAY			
01...	1315	44	140
JUL			
02...	1500	--	--
SEP			
05...	1145	2900	450

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT									
03...	1300	770	15.5	539	1120	--	--	--	--
DEC									
01...	1300	894	5.0	163	393	--	--	--	--
FEB									
01...	1300	724	4.0	26	51	--	--	--	--
APR									
12...	1030	2710	8.0	1670	12200	--	--	--	--
MAY									
01...	1315	3140	12.0	1270	10800	--	--	--	--
25...	0650	8890	14.0	1060	25400	--	--	--	39
JUL									
02...	1500	3510	19.5	950	9000	--	--	--	--
19...	0650	1000	18.0	14600	39400	52	61	78	--
AUG									
01...	0650	1000	21.0	2640	7130	42	49	73	--
13...	0650	532	19.5	10100	14500	64	73	95	--
16...	0650	493	20.0	2230	2970	64	79	94	--
20...	0650	588	20.0	5320	8450	50	58	72	95
30...	0645	1710	18.0	5690	26300	33	42	61	87
SEP									
19...	0650	541	17.0	1200	1750	57	79	92	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
OCT									
03...	--	--	--	46	--	--	--	--	--
DEC									
01...	--	--	--	60	--	--	--	--	--
FEB									
01...	--	--	--	78	--	--	--	--	--
APR									
12...	--	--	--	11	17	26	42	72	93
MAY									
01...	--	--	--	11	15	29	59	86	97
25...	56	87	100	--	--	--	--	--	--
JUL									
02...	--	--	--	10	18	44	57	83	97
19...	--	--	--	90	91	92	96	100	--
AUG									
01...	--	--	--	92	96	99	100	--	--
13...	--	--	--	100	--	--	--	--	--
16...	--	--	--	99	100	--	--	--	--
20...	99	100	--	--	--	--	--	--	--
30...	98	100	--	--	--	--	--	--	--
SEP									
19...	--	--	--	96	98	100	--	--	--

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	422	365	337						256	440	330
2	356	410	351	313						259	325	305
3	357	409	358	318						260	312	308
4	355	408	350	313						287	348	311
5	355	428	340	321						315	307	
6	362	384	334	313						340		
7	375	381	331	318						335		
8	386	382	335	308					247	342		
9	398	393	332	305					248	355		
10	399	388	322	322					260	365		
11	402	396	318	316					261	378		
12	395	390	314	308					260	368		
13	366	387	305	305					263	367		
14	378	384	308	308					262	368		
15	380	384	305	309					261	354	439	
16	393	386	302	304	310				258	349	356	
17	392	388	308	315	308				252	349	348	
18	392	384	314	312	302				240	325	354	
19	389	384	312		301		275		263	417	337	
20	385	383	318		302		270		241	341	362	
21	382	382	314		305		268		241	335	345	379
22	380	379	308		298		275		241	335	339	371
23	384	364	315		300		269		249	328	339	372
24	382	366	312		302		268		259	344	339	381
25	386	384	308		326		256		256	369	356	386
26	398	378	298		304		260		256	369	401	395
27	405	376	308		315		258		254	370	310	334
28	406	372	303		300		254		257	373	322	353
29	408	354	307		298		263		257	376	304	373
30	410	352	312		---		265		257	386	362	375
31	432	---	300		---		---		---	393	302	---
MEAN	385	386	320							345		

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1										---	---	---
2										---	---	---
3										---	---	---
4										---	---	---
5										---	---	---
6										---	---	---
7										---	---	---
8										---	---	---
9										---	---	---
10										---	---	---
11										---	---	---
12										---	---	---
13										---	---	---
14										---	---	---
15										---	---	---
16										---	---	---
17										---	---	---
18										---	---	---
19										338	314	327
20										380	306	350
21										360	314	339
22										358	310	337
23										380	304	347
24										372	312	348
25										368	304	341
26										358	290	336
27										364	298	338
28										412	300	334
29										428	314	381
30										426	416	421
31										416	298	389
MONTH										428	290	353

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	354	298	313	315	301	305	433	351	390	372	228	268
2	326	294	311	321	301	311	383	351	360	378	268	307
3	388	312	331	331	309	320	363	343	353	346	204	265
4	328	290	310	329	311	319	359	341	347	284	258	271
5	336	292	312	351	319	332	341	305	318	280	262	270
6	326	296	311	339	313	322	331	293	311	280	260	270
7	338	302	320	327	311	319	333	319	326	276	252	264
8	350	302	321	325	307	316	323	313	318	284	262	272
9	330	304	313	321	303	310	323	305	315	280	246	268
10	316	298	308	317	303	308	315	301	307	266	144	216
11	314	304	309	317	305	309	315	299	305	170	154	162
12	326	302	313	315	301	308	309	297	302	232	88	164
13	322	300	311	323	307	315	299	287	292	208	102	145
14	316	300	309	325	313	318	297	283	288	200	184	192
15	316	298	304	319	307	313	291	277	284	208	92	165
16	---	---	---	317	309	313	287	271	278	208	198	202
17	---	---	---	317	303	310	297	275	284	290	166	202
18	---	---	---	313	307	311	289	235	274	212	200	206
19	---	---	---	315	307	311	---	---	---	212	198	205
20	---	---	---	325	315	320	---	---	---	212	184	206
21	---	---	---	361	323	334	---	---	---	216	200	208
22	---	---	---	367	357	362	---	---	---	216	200	208
23	---	---	---	355	337	345	---	---	---	214	210	212
24	---	---	---	371	349	358	---	---	---	212	200	204
25	---	---	---	369	339	350	---	---	---	208	196	203
26	---	---	---	351	327	336	---	---	---	210	198	204
27	---	---	---	349	329	337	---	---	---	208	196	202
28	---	---	---	359	335	350	---	---	---	208	202	206
29	---	---	---	365	357	361	---	---	---	212	204	207
30	---	---	---	427	353	390	---	---	---	210	200	206
31	---	---	---	429	353	408	---	---	---	214	204	210
MONTH	388	290	313	429	301	330	433	235	314	378	88	219

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	216	204	210				---	---	---	---	---	---
2	222	210	214				---	---	---	---	---	---
3	230	218	222				---	---	---	---	---	---
4	234	226	230				---	---	---	---	---	---
5	240	232	236				---	---	---	330	316	322
6	244	238	241				318	302	312	370	330	355
7	254	242	247				328	290	319	384	372	378
8	---	---	---				352	330	339	396	332	354
9	---	---	---				364	352	358	344	334	338
10	---	---	---				370	354	362	346	324	334
11	---	---	---				364	352	356	334	324	328
12	---	---	---				370	358	364	332	320	327
13	---	---	---				356	344	350	330	318	324
14	---	---	---				364	294	346	330	320	325
15	---	---	---				---	---	---	334	326	330
16	---	---	---				---	---	---	338	328	333
17	---	---	---				---	---	---	340	324	334
18	---	---	---				---	---	---	364	336	346
19	---	---	---				---	---	---	380	366	374
20	---	---	---				---	---	---	416	380	393
21	---	---	---				---	---	---	---	---	---
22	---	---	---				---	---	---	---	---	---
23	---	---	---				---	---	---	---	---	---
24	---	---	---				---	---	---	---	---	---
25	---	---	---				---	---	---	---	---	---
26	---	---	---				---	---	---	---	---	---
27	---	---	---				---	---	---	---	---	---
28	---	---	---				---	---	---	---	---	---
29	---	---	---				---	---	---	---	---	---
30	---	---	---				---	---	---	---	---	---
31	---	---	---				---	---	---	---	---	---
MONTH	254	204	229				370	290	345	416	316	343
YEAR	433	88	301									

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			5.0	.0			6.5	10.0				
2			5.0	.0			6.0	10.5				
3			7.0				10.5	9.5				
4			5.0				11.5	11.0				
5			4.0				7.5	11.0				
6			3.0				8.0	11.5				
7			4.0				9.0	9.5				
8			4.0				8.5					
9			4.0				9.5					
10			5.5				6.0					
11			3.0				9.0					
12			5.0				7.0					
13			4.0				8.0					
14			3.0				8.5					
15			4.0				9.0					
16			1.0				9.0					
17			1.5				9.0					
18			1.0				11.5					
19			4.0				10.0					
20			5.0				8.0					
21			3.0		7.0		7.5					
22			2.0		6.5		7.5					
23			3.0		7.0		8.0					
24			.0		7.0		9.0					
25			.5		6.5		10.0					
26			2.0		5.0		8.0					
27			3.5		7.0		6.0					
28			.0		7.5		8.0					
29			1.0		9.0		8.5					
30		4.5	.0		---		8.0					
31		---	.0		---		---		---			---
MEAN			3.0				8.5					

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	17.0	15.0	16.0	13.5	9.5	11.5				---	---	---
2	16.5	14.0	15.0	12.5	9.5	11.0				---	---	---
3	16.5	13.0	15.0	13.0	9.0	11.0				3.0	2.5	2.5
4	17.0	12.5	15.0	11.5	9.0	10.5				3.5	2.5	2.5
5	17.0	13.0	15.5	13.0	10.0	11.5				4.5	2.5	3.0
6	18.0	14.0	16.0	13.0	9.5	11.5				5.5	2.0	3.5
7	18.0	13.5	16.0	12.5	8.5	10.5				6.0	2.5	4.0
8	16.5	13.5	15.0	11.0	8.5	10.0				6.0	2.5	4.5
9	17.5	14.0	16.0	8.5	5.5	7.5				6.0	2.5	4.5
10	18.0	13.5	16.0	8.0	5.0	6.5				6.0	3.0	4.5
11	17.0	13.5	15.5	9.0	5.0	7.0				4.5	1.0	3.0
12	16.0	12.0	14.0	9.0	6.0	7.5				4.5	2.0	3.0
13	15.0	11.0	13.5	10.0	6.5	8.5				3.5	1.5	2.5
14	14.0	11.0	12.5	10.0	7.0	8.5				3.0	1.5	2.5
15	15.0	10.5	12.5	7.5	4.5	6.5				4.5	1.5	2.5
16	14.5	10.0	12.0	7.5	4.0	6.0				3.5	1.5	2.0
17	13.5	10.0	12.0	7.5	3.5	6.0				2.5	1.5	1.5
18	15.5	11.5	13.5	7.5	6.0	7.0				1.5	1.5	1.5
19	14.0	12.0	12.5	6.0	4.5	5.5				1.5	1.5	1.5
20	12.5	11.0	11.5	5.0	3.0	4.0				1.5	1.5	1.5
21	14.5	10.5	12.5	6.0	4.5	5.0				1.5	1.5	1.5
22	14.5	10.5	12.5	5.5	3.5	4.5				1.5	1.5	1.5
23	14.0	10.0	12.0	5.0	2.5	3.5				1.5	1.5	1.5
24	13.5	9.5	11.5	4.5	1.5	3.0				2.0	1.5	1.5
25	13.0	9.5	11.0	4.5	2.0	3.5				2.0	1.5	1.5
26	13.0	8.5	10.5	5.0	3.0	4.0				2.5	1.5	2.0
27	12.0	8.0	10.0	3.5	1.5	2.5				4.0	1.5	2.5
28	13.5	9.5	11.5	3.0	.0	.5				4.5	1.5	2.5
29	13.5	9.5	11.5	1.5	.5	1.0				4.5	1.5	3.0
30	11.5	11.0	11.5	---	---	---				5.5	2.0	3.5
31	12.5	11.0	12.0	---	---	---				5.5	1.5	3.5
MONTH	18.0	8.0	13.5	13.5	.0	6.5				6.0	1.0	2.5

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	5.0	1.5	3.5	8.0	6.5	7.5				---	---	---
2	5.5	1.5	3.5	9.5	4.5	7.0				---	---	---
3	5.5	1.5	3.5	10.5	5.5	8.0				---	---	---
4	6.0	1.5	4.0	8.0	4.5	6.0				---	---	---
5	6.0	2.0	4.0	7.0	3.0	5.0				---	---	---
6	6.5	2.0	4.0	7.5	3.0	5.5				---	---	---
7	6.5	2.0	4.5	8.5	3.0	6.0				---	---	---
8	6.5	2.5	4.5	8.0	4.0	6.0				13.5	10.0	12.5
9	6.5	2.5	4.5	9.5	4.5	7.0				14.5	10.0	12.5
10	7.5	3.5	5.5	11.0	6.0	8.5				14.5	10.5	12.5
11	6.5	4.0	5.0	11.0	7.5	9.0				14.5	11.0	13.0
12	6.5	2.5	4.5	11.0	6.0	8.5				14.5	11.5	13.5
13	7.5	2.5	5.0	12.0	7.5	10.0				15.0	12.0	13.5
14	7.0	3.5	5.5	10.0	8.0	9.0				15.5	12.5	14.0
15	8.0	4.5	6.0	11.0	7.5	9.5				14.5	12.5	13.5
16	8.0	3.5	6.0	11.5	8.5	10.0				13.5	12.5	13.0
17	7.5	4.5	6.0	10.5	7.5	9.0				14.5	12.0	13.5
18	7.5	3.5	5.0	9.5	6.5	7.5				15.0	12.5	13.5
19	7.5	3.0	5.0	9.5	5.5	7.5				15.0	12.0	13.5
20	6.0	4.0	5.0	10.0	6.5	8.5				15.5	12.5	14.0
21	---	---	---	11.0	7.0	9.0				16.0	13.0	14.5
22	---	---	---	10.0	7.5	8.0				16.5	13.0	15.0
23	---	---	---	8.5	6.0	7.5				17.0	14.0	15.5
24	---	---	---	10.0	5.0	7.5				17.0	14.5	15.5
25	---	---	---	8.5	6.5	7.5				16.5	13.5	15.0
26	---	---	---	6.5	5.0	5.5				16.5	13.5	15.0
27	---	---	---	6.5	5.0	5.5				16.5	13.5	15.0
28	---	---	---	8.5	4.0	6.5				17.0	14.0	15.5
29	---	---	---	10.5	6.0	8.5				17.0	14.0	15.5
30	---	---	---	9.0	7.0	8.0				16.5	14.0	15.5
31	---	---	---	11.0	5.5	7.5				16.5	14.5	15.5
MONTH	8.0	1.5	4.5	12.0	3.0	7.5				17.0	10.0	14.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	16.0	14.5	15.5	19.0	16.5	18.0	22.0	20.0	21.0	20.5	18.0	19.0
2	16.0	14.0	15.0	21.0	16.5	18.0	21.0	18.5	20.0	20.5	16.0	18.5
3	15.5	13.5	14.5	20.5	16.5	18.5	22.0	18.0	20.0	21.5	16.5	19.0
4	16.0	13.0	14.5	21.5	18.0	19.5	21.5	18.0	20.0	22.0	16.5	19.5
5	15.0	13.0	13.5	24.0	19.0	21.5	22.0	18.0	20.0	21.5	17.5	19.5
6	15.0	12.5	13.5	24.5	19.5	22.0	21.5	19.0	19.5	21.0	16.0	18.5
7	15.5	12.5	14.0	24.5	19.5	22.0	23.0	18.5	20.5	22.0	15.0	18.5
8	16.0	12.5	14.0	25.0	20.0	22.5	22.5	18.5	20.5	21.0	17.0	19.0
9	16.5	12.5	14.5	24.0	19.5	22.0	23.5	18.0	21.0	20.5	15.5	18.5
10	17.0	12.5	14.5	23.0	19.5	21.0	24.5	19.0	21.5	20.0	16.0	18.5
11	17.5	13.0	15.5	23.0	19.0	21.0	25.0	18.5	21.5	20.0	16.5	18.5
12	18.0	13.5	15.5	22.5	19.0	21.0	26.0	19.0	22.5	20.0	17.0	18.5
13	17.0	14.0	16.0	24.0	19.5	21.5	23.5	19.0	21.5	20.5	16.5	18.5
14	18.0	14.0	16.0	24.5	20.0	22.5	24.0	19.0	21.5	20.5	17.0	19.0
15	18.5	14.0	16.5	25.0	20.5	23.0	23.0	18.0	20.5	19.0	16.5	17.5
16	17.5	14.5	16.5	24.0	21.0	22.5	24.0	19.5	21.5	19.0	16.0	17.5
17	19.0	14.5	17.0	23.5	19.0	21.5	24.5	19.0	22.0	20.0	16.5	18.5
18	18.5	14.5	16.5	23.5	19.0	21.5	25.0	20.0	22.5	21.5	16.0	19.0
19	18.5	14.5	16.5	23.5	17.5	21.0	25.0	20.5	22.5	22.0	16.0	19.0
20	19.0	15.0	17.0	25.0	19.5	22.0	23.0	19.5	21.0	21.5	17.0	19.0
21	19.5	15.0	17.0	25.0	20.5	22.5	23.0	18.5	21.0	19.5	16.5	18.0
22	19.5	15.0	17.0	24.5	19.5	22.0	21.5	18.5	20.0	20.0	15.0	17.5
23	19.0	15.0	17.0	25.5	19.5	22.5	21.0	18.0	20.0	19.5	15.0	17.5
24	19.0	15.5	17.5	24.0	20.5	22.5	22.0	17.5	20.0	20.0	15.0	17.5
25	18.0	15.5	17.0	24.0	19.0	21.5	23.0	18.5	21.0	19.5	14.5	17.0
26	20.0	15.5	18.0	24.5	18.5	21.5	22.0	18.0	20.5	15.0	12.5	13.5
27	20.0	16.0	18.0	24.5	20.0	22.5	22.5	18.5	20.5	18.0	12.5	15.0
28	21.0	15.5	18.5	27.0	20.0	23.0	21.5	18.0	20.0	17.0	13.5	15.0
29	20.5	17.0	18.5	26.5	21.0	23.5	22.0	17.5	19.5	15.5	10.5	12.5
30	20.5	16.0	18.5	27.5	21.0	24.0	21.0	17.0	19.5	16.5	12.0	14.0
31	---	---	---	25.0	21.5	23.5	21.5	18.0	20.0	---	---	---
MONTH	21.0	12.5	16.0	27.5	16.5	21.5	26.0	17.0	20.5	22.0	10.5	17.5
YEAR	27.5	.0	13.0									

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	235	504	33	36	196	497	117	243	65	120	68	138
2	178	368	69	80	385	1130	80	161	80	149	75	154
3	245	505	65	80	389	1220	172	311	67	125	76	157
4	178	385	60	84	362	1150	190	343	66	122	52	107
5	166	328	127	219	333	1040	142	282	71	128	63	121
6	126	224	115	200	320	976	94	194	640	1140	86	170
7	110	185	102	179	307	945	60	121	105	190	60	113
8	100	151	72	109	653	1550	83	164	61	112	76	158
9	123	184	66	95	256	601	62	123	54	99	88	195
10	184	269	84	122	285	854	71	152	70	131	105	234
11	82	114	50	72	323	1050	89	204	102	192	101	230
12	116	187	43	65	335	1100	76	176	201	374	105	239
13	88	129	51	77	307	1010	71	163	86	158	1020	3110
14	60	81	42	65	276	902	63	144	79	150	1150	4940
15	53	66	63	98	247	814	74	167	74	144	1110	5030
16	43	48	40	58	219	692	74	161	80	159	1280	6360
17	41	46	44	66	188	553	100	212	65	133	1140	6060
18	52	60	39	60	154	457	153	318	64	132	933	5140
19	51	60	49	77	163	489	121	187	93	181	736	4170
20	71	93	87	135	156	468	159	271	556	1110	735	4450
21	60	83	53	81	198	599	106	168	92	178	733	3940
22	63	90	145	265	118	271	67	108	101	199	964	6120
23	52	70	137	279	72	168	114	188	81	162	752	5040
24	45	60	78	135	62	143	126	205	63	124	416	1800
25	50	61	63	100	29	66	109	172	125	280	260	1050
26	43	46	87	146	67	157	107	195	179	451	565	3660
27	44	44	46	74	74	179	111	200	563	1390	356	2220
28	34	34	65	100	97	252	76	139	124	272	319	1770
29	23	24	234	495	146	371	78	146	77	159	293	1390
30	24	24	188	442	100	226	254	470	---	---	1550	6360
31	33	33	---	---	100	210	96	177	---	---	2790	11100
TOTAL	---	4556	---	4094	---	20140	---	6265	---	8264	---	85726

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	256	1020	951	7910	812	16800	541	5080	2260	5700	500	1390
2	195	763	655	5520	745	14700	831	7760	2090	6660	542	1450
3	461	2220	553	4660	651	12200	611	5440	1240	4180	455	1170
4	576	2800	511	4480	865	15700	684	3710	653	2100	437	1080
5	567	3200	685	6570	891	15000	495	1630	921	2960	514	1190
6	535	2470	827	8530	727	11700	423	1160	1160	3920	348	435
7	368	1890	871	10300	524	7710	289	723	1140	3420	196	214
8	564	2970	1060	14500	659	9070	263	590	526	979	637	1330
9	500	2820	874	12600	852	10700	218	444	165	218	527	1200
10	717	4630	865	13200	483	5720	187	371	202	268	531	1210
11	904	6590	1240	20400	545	5970	253	534	142	196	537	1250
12	1150	8100	1250	22700	505	5280	280	637	1980	2460	525	1240
13	544	3290	1130	22200	540	5450	325	762	8100	11100	612	1540
14	676	4540	1160	24200	336	3370	802	1870	2520	4820	581	1520
15	1020	7110	1500	34600	335	3430	260	564	18800	53400	595	1560
16	605	4460	1530	36500	299	3040	240	507	2340	3500	640	1690
17	1320	12600	1410	36000	404	4310	1490	3540	924	1220	810	2160
18	1630	18900	1120	27300	472	5970	1020	3110	431	605	515	829
19	1350	17000	927	21500	1350	16000	10200	28100	1080	1540	783	1140
20	1410	18500	871	18800	566	6420	650	1460	5270	9870	230	330
21	1220	16100	801	16600	555	5890	231	471	3530	8110	330	433
22	920	11800	746	15000	497	5020	209	405	2160	4640	250	294
23	904	11300	857	17800	462	4620	170	300	4690	14200	120	134
24	924	9800	1040	23400	447	4560	125	188	2180	4860	126	138
25	801	8130	1050	25500	488	5130	89	124	1900	4390	98	98
26	912	10900	972	23200	500	5170	99	129	7310	17600	1260	2890
27	789	9180	815	19100	485	4900	86	100	2570	7080	1070	2950
28	729	6770	809	18500	402	4110	78	82	2620	10400	289	387
29	794	6900	711	15500	402	4080	95	97	2890	12800	152	179
30	640	5340	857	18200	484	4840	65	66	4730	20800	115	136
31	---	---	802	16700	---	---	124	129	952	2960	---	---
TOTAL	---	222093	---	561970	---	226860	---	70083	---	226956	---	31567

TOTAL LOAD FOR YEAR: 1468574 TONS.

08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¼SW¼, sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at McClure Dam on Santa Fe River, 2.1 mi upstream from Nichols Reservoir, 5.8 mi east of Santa Fe, and at mile 37.1.

DRAINAGE AREA.--17.4 mi^2.

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year. Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only. Prior to January 1980 at site on outlet tower.

GAGE.--Water-stage recorder. Altitude of gage is 7,788 ft, from topographic map. Prior to Oct. 1, 1947, nonrecording gages at same site and various datums all referred to the Public Service Co. of New Mexico assumed datum, 165.9 ft lower.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft, raised 3 ft in 1935, capacity, 650 acre-ft, and raised 36.5 ft more in 1947, capacity, 2,615 acre-ft at gage height 96.6 ft, crest of concrete spillway. Between October 1947 and May 1953 varying amounts of sandbag bulkheads were placed on crest of spillway to increase capacity. Between May 1953 and December 1971 spillway was equipped with radial gates that opened automatically thereby increasing capacity to over 3,000 acre-ft. Radial gates were removed during 1972, capacity, 2,615 acre-ft. No dead storage. Water is for municipal use of city of Santa Fe.

COOPERATION.--Capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,140 acre-ft June 25, 1960, gage height, 103.7 ft; no contents Jan. 25 to May 8, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,660 acre-ft May 21-23, maximum gage height, 97.19 ft May 23; minimum, 1,230 acre-ft Mar. 16-30, minimum gage height, 73.82 ft Mar. 25.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1947)

75	1,280	90	2,160
80	1,550	95	2,500
85	1,840	100	2,860

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2320	1950	1900	1690	1490	1310	1240	1720	2630	2610	2240	2150
2	2310	1950	1900	1680	1490	1300	1240	1730	2630	2620	2210	2150
3	2300	1950	1890	1680	1480	1300	1240	1730	2630	2610	2200	2140
4	2280	1950	1880	1670	1470	1290	1240	1740	2620	2610	2180	2140
5	2270	1950	1880	1660	1460	1280	1250	1760	2620	2620	2170	2140
6	2250	1950	1870	1660	1450	1280	1260	1780	2620	2620	2150	2140
7	2230	1950	1860	1650	1450	1270	1280	1800	2620	2620	2140	2150
8	2220	1950	1860	1630	1440	1270	1300	1820	2620	2610	2130	2150
9	2210	1950	1850	1640	1440	1260	1310	1850	2620	2600	2110	2150
10	2190	1950	1840	1640	1430	1260	1320	1880	2620	2600	2090	2160
11	2180	1950	1830	1630	1420	1250	1340	1920	2620	2590	2070	2160
12	2150	1950	1820	1620	1420	1250	1360	1970	2620	2590	2060	2170
13	2140	1950	1820	1620	1410	1240	1370	2040	2610	2580	2040	2160
14	2130	1950	1810	1610	1400	1240	1390	2110	2600	2580	2040	2150
15	2110	1940	1800	1610	1400	1240	1410	2190	2590	2570	2000	2140
16	2100	1940	1790	1600	1400	1230	1430	2290	2580	2570	1980	2140
17	2080	1950	1790	1590	1390	1230	1450	2390	2570	2550	1970	2140
18	2070	1940	1780	1580	1380	1230	1480	2470	2580	2530	1950	2130
19	2050	1940	1770	1580	1380	1230	1510	2550	2590	2510	1940	2120
20	2040	1940	1770	1570	1370	1230	1540	2630	2600	2490	1960	2110
21	2020	1940	1760	1570	1360	1230	1570	2660	2610	2460	1960	2090
22	2010	1940	1750	1560	1360	1230	1590	2660	2610	2440	1970	2080
23	1990	1940	1750	1550	1350	1230	1600	2660	2620	2420	1990	2060
24	1980	1940	1740	1540	1350	1230	1620	2650	2620	2400	2030	2050
25	1960	1930	1730	1540	1340	1230	1640	2650	2620	2380	2060	2030
26	1950	1930	1730	1530	1330	1230	1660	2650	2620	2360	2080	2010
27	1950	1920	1720	1520	1320	1230	1680	2640	2620	2340	2110	2000
28	1950	1920	1710	1520	1320	1230	1700	2640	2620	2320	2130	1980
29	1950	1910	1710	1510	1310	1230	1710	2640	2620	2300	2140	1970
30	1950	1910	1700	1500	---	1230	1720	2640	2620	2280	2160	1950
31	1950	---	1700	1500	---	1240	---	2630	---	2260	2170	---
MAX	2320	1950	1900	1690	1490	1310	1720	2660	2630	2620	2240	2170
MIN	1950	1910	1700	1500	1310	1230	1240	1720	2570	2260	1940	1950
(†)	86.77	86.08	82.51	78.98	75.58	73.95	82.95	96.86	96.63	91.43	90.07	86.78
(††)	-390	-40	-210	-200	-190	-70	+480	+910	+10	-360	-90	-220

CAL YR 1983 MAX 2660 MIN 1400 (††) +420
WTR YR 1984 MAX 2660 MIN 1230 (††) -390

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET

08316000 SANTA FE RIVER NEAR SANTA FE, NM

LOCATION.--Lat 35°41'12", long 105°50'35", in NE¼SE¼ sec.23, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on left bank 0.4 mi downstream from McClure Dam, 5.3 mi east of Santa Fe, and at mile 36.6.

DRAINAGE AREA.--18.2 mi^2.

PERIOD OF RECORD.--June 1910, January 1913 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Santa Fe Creek near Santa Fe.

REVISED RECORDS.--WSP 1512: 1933, 1936-37(M), 1942, drainage area. WSP 1732: 1923, 1925. WDR NM-75-1: 1927.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,718 ft, from topographic map. See WSP 1312 for history of changes prior to Oct. 1, 1947.

REMARKS.--Records good. Flow regulated by McClure Reservoir (station 08315500), completed in 1926, raised in 1935 and again in 1947. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--71 years, 7.94 ft^3/s, 5,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft^3/s Aug. 14, 1921, gage height, 5.17 ft, site and datum then in use, from rating curve extended above 150 ft^3/s; minimum, 0.05 ft^3/s Apr. 7, 8, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft^3/s occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 65 ft^3/s May 25, gage height, 2.72 ft; minimum, 1.6 ft^3/s many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	1.6	5.0	4.9	4.6	4.4	4.6	9.9	28	6.1	12	6.8
2	10	1.6	5.5	4.9	4.6	4.4	4.6	10	25	6.0	12	6.8
3	10	1.6	5.5	4.9	4.6	4.4	4.6	10	23	6.0	12	6.8
4	10	1.6	5.5	4.9	4.6	4.4	4.6	10	19	6.0	12	6.8
5	10	1.6	5.5	4.9	4.6	4.4	4.6	10	18	6.2	12	6.8
6	10	1.6	5.4	4.9	4.6	4.4	4.6	10	17	6.5	12	6.8
7	10	1.6	5.4	4.9	4.5	4.4	4.6	10	15	6.5	13	6.8
8	10	1.6	5.4	4.9	4.4	4.4	4.6	11	13	6.5	12	6.8
9	10	1.6	5.4	4.9	4.4	4.4	4.6	11	12	6.5	12	6.8
10	10	1.6	5.4	4.9	4.4	4.4	4.6	11	11	6.5	12	6.8
11	10	1.6	5.2	4.9	4.4	4.4	4.6	11	11	6.5	12	6.8
12	10	1.6	5.2	4.9	4.4	4.4	4.6	11	11	6.5	12	6.8
13	9.9	1.6	5.1	4.9	4.3	4.4	4.6	11	13	6.5	12	6.8
14	9.9	1.6	4.9	4.9	4.3	4.4	4.6	11	14	6.5	12	6.8
15	9.9	1.6	4.9	4.9	4.3	4.4	4.6	11	13	6.5	12	6.8
16	9.9	1.6	4.9	4.8	4.3	4.4	4.6	11	13	6.5	12	6.8
17	9.8	1.6	4.9	4.6	4.3	4.4	4.6	11	10	9.6	12	6.8
18	9.8	1.6	4.9	4.6	4.3	4.4	4.6	11	5.2	12	12	6.8
19	9.8	1.6	4.9	4.6	4.3	4.4	4.6	11	5.2	12	13	8.0
20	9.9	1.6	4.9	4.6	4.6	4.4	4.6	11	5.2	12	13	10
21	9.8	1.6	4.9	4.6	4.6	4.4	4.6	11	5.2	12	9.3	11
22	9.8	1.6	4.9	4.6	4.9	4.4	4.6	11	5.2	12	6.8	11
23	9.7	2.7	4.9	4.6	4.6	4.4	4.6	11	5.7	12	6.8	11
24	9.7	4.2	4.9	4.6	4.6	4.4	4.6	56	6.1	12	6.8	11
25	9.7	4.2	4.9	4.6	4.9	4.4	4.6	53	7.2	12	6.8	11
26	6.0	4.2	4.9	4.6	4.9	4.4	4.6	47	6.9	12	6.8	11
27	1.5	4.2	4.9	4.6	4.9	4.5	4.6	44	6.5	12	6.8	11
28	1.5	4.2	4.9	4.6	5.2	4.6	4.8	41	6.7	12	6.8	11
29	1.5	4.2	4.9	4.6	4.9	4.6	4.9	36	6.3	12	6.8	11
30	1.6	4.2	4.9	4.6	---	4.6	7.5	33	6.2	12	6.8	11
31	1.6	---	4.9	4.6	---	4.6	---	30	---	12	6.8	---
TOTAL	261.3	67.3	157.7	147.3	132.3	137.3	141.4	585.9	343.6	279.4	320.3	250.4
MEAN	8.43	2.24	5.09	4.75	4.56	4.43	4.71	18.9	11.5	9.01	10.3	8.35
MAX	10	4.2	5.5	4.9	5.2	4.6	7.5	56	28	12	13	11
MIN	1.5	1.6	4.9	4.6	4.3	4.4	4.6	9.9	5.2	6.0	6.8	6.8
AC-FT	518	133	313	292	262	272	280	1160	682	554	635	497

CAL YR 1983 TOTAL 5588.0 MEAN 15.3 MAX 112 MIN 1.5 AC-FT 11080
WTR YR 1984 TOTAL 2824.2 MEAN 7.72 MAX 56 MIN 1.5 AC-FT 5600

08316500 NICHOLS RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¼NE¼ sec.21, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, at Nichols Dam on Santa Fe River, 0.6 mi east of Twomile Reservoir, 3.3 mi east of Santa Fe, and at mile 34.4.

DRAINAGE AREA.--22.8 mi^2.

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year. Prior to January 1980 at site on outlet tower.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. No contents prior to Mar. 16, 1943. Capacity, 685 acre-ft between gage heights 121.2 ft, bottom of lower operational gate and 167.0 ft, crest of spillway. Dead storage, 14 acre-ft. Water is for municipal use of city of Santa Fe.

COOPERATION.--Survey to compute capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft June 8, 1952, gage height, 171.8 ft; minimum, 16 acre-ft Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 712 acre-ft May 24, gage height, 167.87 ft; minimum, 352 acre-ft Feb. 29, Mar. 1, 25, gage height, 153.79 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1943)

145	202	160	491
150	279	165	625
155	375	170	776

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	403	528	367	360	380	352	357	373	702	609	452	574
2	410	522	366	361	378	354	361	384	702	603	450	537
3	417	514	363	362	376	357	364	393	700	595	448	526
4	428	507	360	361	376	360	368	399	698	589	448	516
5	435	500	357	361	380	362	372	403	698	584	455	506
6	444	492	356	360	382	365	375	405	694	573	459	495
7	452	486	359	360	384	366	380	408	693	560	483	482
8	462	479	362	360	384	365	385	411	693	550	508	470
9	470	473	363	360	385	364	388	414	690	537	518	458
10	478	466	363	362	386	363	390	415	689	523	523	445
11	468	459	364	364	386	362	391	414	688	509	528	434
12	492	452	364	367	388	362	394	411	684	498	533	423
13	498	446	365	369	389	361	395	408	681	493	538	412
14	502	439	365	372	389	360	393	405	687	483	544	404
15	507	433	366	374	386	359	392	403	692	474	549	394
16	512	427	366	376	384	358	390	408	695	464	553	384
17	516	421	366	379	383	358	387	406	692	460	556	374
18	523	415	366	381	380	358	382	423	684	463	560	372
19	523	409	366	383	377	357	377	431	677	465	563	370
20	530	403	365	385	374	356	372	436	671	465	567	368
21	534	397	365	387	371	356	368	486	665	465	573	366
22	539	391	364	390	369	355	368	569	657	462	580	364
23	547	384	363	392	366	354	369	656	648	460	586	362
24	557	381	361	393	364	354	369	712	642	458	585	360
25	565	381	359	392	361	352	366	711	638	455	584	362
26	568	381	357	390	359	353	361	709	633	453	583	364
27	562	380	357	388	356	354	357	711	628	452	582	367
28	556	378	358	386	354	354	358	706	625	452	577	372
29	549	375	358	385	352	353	360	704	622	454	573	377
30	542	370	358	383	---	354	364	703	618	454	568	382
31	535	---	359	382	---	354	---	702	---	455	558	---
MAX	568	528	367	393	389	366	395	712	702	609	586	574
MIN	403	370	356	360	352	352	357	373	618	452	448	360
(†)	161.65	154.75	---	155.30	153.80	153.91	154.41	167.54	164.75	158.44	---	---
(††)	+139	-165	a-11	+23	-30	+2	+10	+338	-84	-163	+103	-176

WTR YR 1984 MAX 712 MIN 352 (††) -153

(†) GAGE HEIGHT, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET
NOTE.--No gage height record Dec. 13 to Jan. 15, a - estimated

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM

LOCATION.--Lat 35°32'49", long 106°13'41", in NW¼ sec.8, T.15 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201 in Mesita de Juana Lopez Grant, on right bank at foot of La Bajada Hill, 5.0 mi upstream from Cochiti Dam, 6.3 mi east of Pena Blanca, and at mile 7.9.

DRAINAGE AREA.--231 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,505 ft, from topographic map.

REMARKS.--Water-discharge records good except those for July thru September, which are fair. Surface and ground-water diversions and returns for municipal supply of city of Santa Fe in upper part of basin. Diversions for irrigation of about 400 acres above station. See tabulation below for the results of discharge measurements made during year at point adjacent to gage of an unnamed ditch on right bank which diverts water 0.4 mi upstream and bypasses gage; ditch flow not included in record.

AVERAGE DISCHARGE.--14 years, 8.86 ft^3/s, 6,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft^3/s July 26, 1971, gage height, 9.58 ft, from rating curve extended above 160 ft^3/s on basis of slope-area measurements at gage heights 5.69 ft and 9.58 ft; no flow July 16-18, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 13	1945	*1200	4.28
June 15	2200	303	2.68
Aug. 20	0100	804	3.65

Minimum daily, 1.3 ft^3/s June 12.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

Date	Discharge
Oct. 11	0.78
Nov. 16	0
Dec. 14	0.39
Jan. 18	0
Apr. 10	0.45
May 24	1.4
July 3	1.2
Aug. 16	1.7
Sept. 26	1.2

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	6.1	8.9	7.9	10	9.9	8.6	3.8	11	4.3	3.5	4.4
2	5.8	6.0	9.4	8.0	10	10	9.2	4.7	14	2.8	13	4.2
3	5.8	6.3	9.3	8.1	11	10	9.2	3.7	15	2.5	6.9	3.8
4	5.6	6.3	9.1	8.2	10	9.6	8.6	3.5	11	2.8	7.8	5.1
5	4.9	7.1	8.8	8.2	10	10	6.5	3.7	8.9	2.7	12	4.7
6	4.0	7.1	9.0	8.4	10	9.7	8.0	4.4	8.6	3.8	8.0	3.3
7	3.8	7.1	8.9	8.4	10	9.4	8.9	4.7	9.1	2.4	14	4.4
8	4.2	7.1	8.9	8.6	10	9.9	7.7	3.7	7.1	3.5	11	4.7
9	6.6	8.0	8.9	8.8	10	9.8	8.3	3.6	4.2	3.4	6.8	3.8
10	5.2	7.7	8.8	8.7	11	9.6	8.6	3.4	2.4	2.3	6.5	4.7
11	4.9	8.3	8.6	8.9	10	10	7.4	3.6	1.6	7.0	6.8	3.3
12	4.7	8.0	9.4	8.6	10	10	7.0	3.5	1.3	7.2	3.9	3.2
13	4.2	7.7	9.3	9.3	10	8.9	6.9	2.7	45	9.3	3.9	3.8
14	5.1	8.0	8.4	9.5	10	9.7	6.7	2.8	14	4.6	6.0	2.8
15	5.2	8.3	7.6	9.4	10	10	5.1	3.8	26	3.5	3.9	3.5
16	5.0	7.3	7.6	10	10	9.6	6.3	8.3	24	4.6	5.7	3.7
17	4.9	6.9	8.2	10	10	9.9	6.5	4.7	9.3	6.3	5.1	9.8
18	5.3	7.9	7.6	10	10	8.9	6.5	4.2	6.4	4.5	3.4	2.7
19	4.4	8.0	7.5	10	10	9.6	5.1	3.4	4.9	5.1	3.9	3.4
20	5.5	8.1	8.3	11	10	9.0	5.2	2.7	12	5.4	75	2.4
21	6.7	8.3	8.3	11	10	8.9	5.0	2.7	7.2	5.6	6.1	3.2
22	6.1	8.4	8.0	11	10	8.7	4.9	2.1	4.8	5.4	6.0	2.5
23	6.2	8.1	8.5	11	10	8.3	4.4	2.0	3.6	4.3	13	3.0
24	5.9	8.1	8.2	11	9.9	8.4	5.0	2.0	2.8	5.4	6.6	2.7
25	5.6	8.1	7.4	11	10	8.6	3.9	14	2.4	5.3	6.4	2.8
26	6.1	8.9	7.6	11	10	9.3	3.8	17	2.3	5.2	5.9	3.5
27	5.8	9.2	7.7	11	10	12	4.2	16	2.0	3.4	6.2	5.4
28	5.7	8.7	7.7	10	10	15	4.9	13	1.8	4.7	5.3	4.6
29	6.3	8.8	7.8	10	10	13	5.6	16	3.5	4.1	4.2	4.6
30	6.1	8.6	7.8	10	---	12	4.8	15	9.3	3.6	4.1	6.6
31	6.3	---	7.9	10	---	10	---	11	---	4.5	4.1	---
TOTAL	166.0	232.5	259.4	297.0	291.9	307.7	192.8	189.7	275.5	139.5	275.0	120.6
MEAN	5.35	7.75	8.37	9.58	10.1	9.93	6.43	6.12	9.18	4.50	8.87	4.02
MAX	6.7	9.2	9.4	11	11	15	9.2	17	45	9.3	75	9.8
MIN	3.8	6.0	7.4	7.9	9.9	8.3	3.8	2.0	1.3	2.3	3.4	2.4
AC-FT	329	461	515	589	579	610	382	376	546	277	545	239

CAL YR 1983 TOTAL 5257.0 MEAN 14.4 MAX 81 MIN 1.6 AC-FT 10430
WTR YR 1984 TOTAL 2747.6 MEAN 7.51 MAX 75 MIN 1.3 AC-FT 5450

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974-75, 1979, 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
NOV 16...	1200	6.6	--	597	7.7	7.1	11.0	6.0	--	66
JAN 18...	1500	4.8	625	--	7.3	--	-2.0	.0	11.2	--
MAY 24...	1215	1.8	590	604	9.0	7.1	29.0	26.0	10.2	--
JUL 03...	1600	1.8	550	538	8.6	7.0	28.5	25.5	--	--
SEP 26...	1500	1.9	540	544	7.0	6.8	10.0	11.5	8.6	60

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 16...	140	0	44	7.7	57	2	7.1	46	29	1.0
JAN 18...	--	--	--	--	--	--	--	--	--	--
MAY 24...	140	0	43	8.8	66	2	8.1	55	32	1.0
JUL 03...	110	0	36	5.6	61	3	9.1	40	36	1.1
SEP 26...	110	0	36	5.4	60	3	7.9	40	32	1.1

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 16...	22	350	--	--	--	--	--	--	--	17
JAN 18...	--	--	--	--	--	--	--	--	--	--
MAY 24...	17	330	--	--	--	--	--	--	--	--
JUL 03...	16	300	--	--	--	--	--	--	--	--
SEP 26...	19	320	4.6	4.3	12.0	5.0	22	6.00	5.30	14

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV 16...	1200	140	59
MAY 24...	1215	160	22
JUL 03...	1600	170	39
SEP 26...	1500	160	30

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 16...	1200	6.6	6.0	93	1.7	68
MAY 24...	1215	1.8	26.0	17	.08	85
JUL 03...	1600	1.8	25.5	22	.11	79
SEP 26...	1500	1.9	11.5	61	.31	97

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", long 106°18'58", in NW¼SW¼ sec.16, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, in control tower at Cochiti Dam, 1.7 mi northeast of Cochiti Pueblo, and at mile 1,588.1.

DRAINAGE AREA.--14,900 mi^2, approximately, including 2,940 mi^2, in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 15, 1975, at site 1.3 mi upstream at same datum.

REMARKS.--Lake is formed by an earthfill dam on Rio Grande and Santa Fe River. Storage began on Nov. 12, 1973. Capacity, based on capacity table effective Jan. 1, 1982, 505,700 acre-ft between elevations 5,247.0 ft and 5,450.0 ft, crest of service spillway. Dead storage 732 acre-ft below elevation 5,255.0 ft, invert of outlet structure. Lake was created primarily for flood and sediment control. A 50,000 acre-ft permanent pool is authorized for recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 184,400 acre-ft June 21, 1979, elevation, 5,387.99 ft; no storage prior to Nov. 12, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 76,670 acre-ft May 28, elevation, 5,347.61 ft; minimum, 45,510 acre-ft Dec. 27, Jan. 19, elevation, 5,326.02 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1981)

5,320	39,040	5,340	64,250
5,330	50,310	5,350	80,970

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45960	45780	46040	47020	46000	45840	45640	46900	75140	46050	47910	47470
2	45980	45890	46040	47660	46020	45890	45750	46930	74170	46170	47900	47500
3	46020	45970	45980	47240	45940	45890	45900	46640	72700	46350	48070	47570
4	45920	45960	46130	46490	45890	45930	45640	46640	70980	47300	48010	47630
5	45900	45990	45940	46240	45890	45900	45960	47100	68460	48180	47960	47620
6	45890	45980	45780	46320	45930	45880	45760	47140	65400	48360	48060	47530
7	45890	45860	45890	46170	46000	45840	45690	46650	61420	48230	48290	47440
8	45900	45780	45860	45970	46020	45810	45820	46690	56740	48000	48060	47760
9	45920	45830	45750	45820	46020	45830	45920	46580	52750	47900	47790	47840
10	45940	45880	46050	45750	46000	45860	46740	47050	50230	48040	47890	47600
11	45920	45750	46020	46820	46000	45960	47060	47510	47670	48400	48010	47420
12	45930	45740	46280	48320	46000	45850	46900	48030	46580	48520	47950	47360
13	46030	45750	45910	48850	46000	45750	46690	49900	46420	48430	48040	47410
14	45940	45780	45830	47940	45990	45930	47070	51940	46410	48320	48010	47510
15	45920	45820	45780	47000	46060	45860	46910	55360	46600	48080	48100	47470
16	45930	45860	45800	46060	46130	45810	46540	59260	46750	48010	47550	47310
17	45900	45890	45710	45680	45940	45850	47040	63460	46790	48230	47590	47620
18	45970	46040	45590	45620	45970	45900	47630	66390	46680	48400	47560	47630
19	45960	46060	46380	45510	45990	45920	48200	68310	46650	48150	47680	47660
20	45980	46000	48430	45820	46000	46020	48310	69080	46000	47840	48060	47550
21	45940	45970	49170	46270	45910	45710	48060	69270	45860	47850	47890	47400
22	45960	46000	48530	46390	45880	45940	47610	69240	45910	47910	47670	47080
23	45940	46080	47840	46400	45900	46650	47060	69520	46080	48010	47670	47080
24	45890	45880	47040	46160	45930	46410	46840	70830	46280	48000	47490	47300
25	45860	45850	46330	45920	45960	45910	46880	72960	45990	47970	47660	47410
26	45860	46060	45660	45970	46100	47140	47200	74740	45660	47910	47320	47460
27	45830	46030	45510	45940	45980	47760	46900	76090	45780	47860	46060	47550
28	45780	45850	45720	45780	45920	47530	46330	76670	46020	47890	45890	47380
29	45760	45850	45820	45810	45850	46680	46520	76630	46270	47980	46520	47380
30	45740	46000	45930	45820	---	45920	46610	76230	46260	48000	47690	47400
31	45740	---	46470	45930	---	45660	---	75430	---	47850	47690	---
MAX	46030	46080	49170	48850	46130	47760	48310	76670	75140	48520	48290	47840
MIN	45740	45740	45510	45510	45850	45660	45640	46580	45660	46050	45890	47080
(†)	5326.22	5326.45	5326.85	5326.39	5326.32	5326.15	5326.97	5346.90	5326.67	5328.01	5327.88	5327.63
(††)	-200	+260	+470	-540	-80	-190	+950	+28820	-29170	+1590	-160	-290

CAL YR 1983 MAX 78570 MIN 42230 (††) +830
WTR YR 1984 MAX 76670 MIN 45510 (††) +1460

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, IN ACRE-FEET

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected in Cochiti Lake impounded by Cochiti Dam on the Rio Grande.

PERIOD OF RECORD.--Water years 1981 to current year.

REMARKS.--Samples for chemical analyses are collected annually at surface and/or bottom levels of selected sites, located as follows: Site A, 500 ft upstream from Outlet Tower (Riser); Site B, 0.4 mi east of Outlet Towers (Riser); Site C, approximately 2.5 mi upstream from Outlet Tower (Riser) and 0.3 mi north of boat ramp on east side of lake; Site D, approximately 5.0 mi upstream from Outlet Tower (Riser) at mouth of Bland Canyon.

08313408 - COCHITI LAKE AT SITE D (LAT 35°40'41" LONG 106°18'53")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
AUG								
31...	1413	10.0	15.0	--	--	--	20.5	6.4
31...	1414	5.00	15.0	285	8.4	28.0	23.5	7.7
31...	1415	1.00	15.0	--	--	--	23.5	8.1

08313412 - COCHITI LAKE AT SITE C (LAT 35°38'57" LONG 106°18'39")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
AUG								
31...	1331	55.0	57.0	322	8.5	32.0	21.0	6.2
31...	1332	50.0	57.0	--	--	--	21.0	6.1
31...	1333	45.0	57.0	--	--	--	21.5	6.0
31...	1334	40.0	57.0	--	--	--	21.5	5.8
31...	1335	35.0	57.0	--	--	--	22.0	5.6
31...	1336	30.0	57.0	--	--	--	22.0	5.5
31...	1337	25.0	57.0	--	--	--	22.0	5.4
31...	1338	20.0	57.0	--	--	--	22.5	5.2
31...	1339	15.0	57.0	--	--	--	22.5	5.2
31...	1340	10.0	57.0	--	--	--	23.0	5.7
31...	1341	5.00	57.0	--	--	--	23.5	7.6
31...	1342	1.00	57.0	--	--	--	24.5	7.8

08317298 - COCHITI LAKE AT SITE B (LAT 35°37'06" LONG 106°18'39")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
AUG								
31...	1249	10.0	12.0	--	--	--	23.0	6.7
31...	1250	5.00	12.0	327	8.5	32.5	23.0	6.6
31...	1251	1.00	12.0	--	--	--	24.5	7.0

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

WATER-QUALITY RECORDS

08317300 - COCHITI LAKE AT SITE A (LAT 35°38'11" LONG 106°19'05")

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)
AUG											
31...	1130	72.0	77.0	318	325	7.6	7.8	27.0	21.0	.2	50
31...	1131	70.0	77.0	--	--	--	--	--	21.0	.2	--
31...	1132	65.0	77.0	--	--	--	--	--	21.5	2.8	--
31...	1133	60.0	77.0	--	--	--	--	--	21.5	3.5	--
31...	1134	55.0	77.0	--	--	--	--	--	21.5	2.9	--
31...	1135	50.0	77.0	--	--	--	--	--	22.0	3.2	--
31...	1136	45.0	77.0	--	--	--	--	--	22.0	3.5	--
31...	1137	40.0	77.0	--	--	--	--	--	22.0	3.3	--
31...	1138	35.0	77.0	--	--	--	--	--	22.0	1.7	--
31...	1139	30.0	77.0	--	--	--	--	--	22.5	5.9	--
31...	1140	25.0	77.0	--	--	--	--	--	23.0	6.2	--
31...	1141	20.0	77.0	--	--	--	--	--	23.0	6.4	--
31...	1142	15.0	77.0	--	--	--	--	--	23.0	6.7	--
31...	1143	10.0	77.0	--	--	--	--	--	23.0	7.0	--
31...	1144	5.00	77.0	--	--	--	--	--	23.0	7.4	--
31...	1145	1.00	77.0	--	--	--	--	--	24.5	7.4	--

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
AUG											
31...	130	11	40	6.3	19	.8	3.0	140	.000	48	5.0
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
AUG										
31...	.40	19	210	<.10	<.10	.100	.40	.090	.040	21
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

WATER-QUALITY RECORDS

08317300 - COCHITI LAKE AT SITE A (LAT 35°38'11" LONG 106°19'05")

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
AUG 31...	1130	3	2	40	<1	<1	<10	<10	4	<1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
AUG 31...	10	3	4	.9	.2	<1	<1	<10	17

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
AUG 31...	1130	<10	80	300	2	<1	8

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
AUG 31...	<10	12	8100	20	580	.35	40

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
AUG 31...	1130	<5.0	<.4	3.5	.6	3.0	.5	.06	1.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)
AUG 31...	1130	<.1	<.010	<.1	<.010	<.010	<.010	<.01

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM -- Continued

WATER-QUALITY RECORDS

08317300 - COCHITI LAKE AT SITE A (LAT 35°38'11" LONG 106°19'05")

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)
AUG 31...	<.010	<.010	<.010	<.01	<.010	<.010	<.010	<.01	<.01

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
AUG 31...	<.01	<.01	<.01	<1	<.01	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	RESER-VOIR DEPTH (FEET) (72025)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
AUG 31...	1130	72.0	77.0	0	52

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
AUG 31...	1130	21.0	36	94

08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¼NE¼ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank 320 ft upstream from bridge on State Highway 22, 700 ft downstream from Cochiti Dam, 1.4 mi northeast of Cochiti Pueblo, and at mile 1,587.6.

DRAINAGE AREA.--14,900 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,226.08 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Nov. 14, 1973, at site 2.4 mi downstream at altitude 5,210 ft, from topographic map. Nov. 14, 1973 to Jan. 8, 1976, at site 320 ft downstream at datum 1.79 ft lower.

REMARKS.--Water-discharge records good. Discharges include flow of Santa Fe River which is intercepted by Cochiti Dam and released through the combined outlet works. Flow regulated by Cochiti Dam since Nov. 12, 1973. Diversions above station for irrigation of about 620,000 acres in Colorado and about 81,000 acres in New Mexico. Cochiti eastside main canal, on left bank, and Sili main canal, on right bank, head at Cochiti Dam and bypass gage for irrigation of about 6,000 acres below station; see tabulation below for monthly and yearly diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 10,300 ft^3/s July 26, 1971, gage height, 7.90 ft, site and datum then in use, from rating curve extended above 2,600 ft^3/s; minimum, 0.51 ft^3/s Aug. 3-5, 1977, Aug. 27-28, 1978, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 15, 1941, reached a discharge of 23,400 ft^3/s at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft^3/s, and is likely the highest since 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft^3/s May 31, gage height, 7.05 ft; minimum, 62 ft^3/s Jan. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	555	198	838	522	682	747	1270	2730	7710	3390	542	942
2	530	197	1010	514	702	727	1210	2910	7690	3200	900	763
3	546	227	1050	790	718	757	1400	3080	7640	3060	920	722
4	610	317	1090	940	718	748	1690	2990	7590	1630	1010	678
5	562	386	1180	850	662	736	1640	3090	7500	807	967	672
6	474	457	1140	745	637	696	1640	3560	7550	805	999	441
7	443	498	1030	800	637	675	1630	4330	7660	845	953	261
8	380	431	932	800	653	686	1670	4910	7550	789	977	310
9	352	297	896	781	683	686	1710	5230	6630	669	662	569
10	352	406	840	754	683	632	1720	5240	5460	526	457	721
11	352	557	1150	262	683	619	2210	5740	5030	466	436	688
12	352	542	1010	67	682	735	2500	6190	4100	637	442	643
13	352	529	1330	337	682	851	2100	6230	3460	780	386	637
14	352	530	1190	1240	683	1200	1930	6440	3350	813	348	637
15	301	530	1170	1230	684	1470	2480	6560	3330	822	691	750
16	236	530	1130	1220	730	1560	2590	6430	3350	714	651	751
17	241	510	1100	798	800	1680	2960	7030	3590	628	338	643
18	219	488	1100	761	740	1730	3640	7360	3750	889	331	422
19	254	547	691	611	682	1830	4150	7440	4240	1080	260	214
20	298	594	87	490	714	1900	4590	7480	4250	885	352	245
21	334	570	659	514	745	1900	4890	7460	3760	656	676	309
22	333	572	1150	538	727	1900	4880	7430	3430	558	703	350
23	331	691	1150	622	706	1840	4760	7410	3330	506	840	203
24	331	745	1170	757	705	1730	3960	7400	3390	455	821	133
25	298	577	1160	731	730	1420	3480	7530	3790	373	562	129
26	237	506	1160	644	851	1380	4010	7660	3770	369	914	411
27	219	606	940	705	940	1830	4320	7690	3470	309	1280	730
28	219	655	810	754	857	1980	3670	7850	3400	228	1200	483
29	219	655	841	754	797	2020	2960	7890	3410	193	1060	231
30	206	754	713	706	---	1710	2890	7840	3530	215	934	236
31	192	---	520	682	---	1410	---	8000	---	275	1000	---
TOTAL	10780	15102	30237	21919	20913	39785	84550	189130	146690	27572	22612	14924
MEAN	348	503	975	707	721	1283	2818	6101	4890	889	729	497
MAX	655	754	1330	1240	940	2020	4890	8000	7710	3390	1280	942
MIN	192	197	87	67	637	619	1210	2730	3330	193	260	129
AC-FT	21380	29950	59980	43480	41480	78910	167700	375100	291000	54690	44850	29600
(†)	3730	1170	0	0	0	2220	3560	4050	4000	3890	3060	3850
(††)	1920	597	0	0	0	1860	2130	2220	2260	2300	2030	2020

CAL YR 1983 TOTAL 675525 MEAN 1851 MAX 6670 MIN 75 AC-FT 1340000
WTR YR 1984 TOTAL 624214 MEAN 1706 MAX 8000 MIN 67 AC-FT 1238000

(†) DIVERSION, IN ACRE-FEET, BY COCHITI EASTSIDE MAIN CANAL AT HEAD
(††) DIVERSION, IN ACRE-FEET, BY SILI MAIN CANAL AT HEAD

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to current year (discontinued).
WATER TEMPERATURES: July 1971 to September 1982.
SUSPENDED-SEDIMENT DISCHARGES: July 1974 to current year (discontinued).

INSTRUMENTATION.--Continuous automatic pumping sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 698 microsiemens July 19, 1978; minimum daily, 130 microsiemens July 30, 1978.
WATER TEMPERATURES: Maximum daily, 35.5°C Aug. 4, 1977; minimum daily, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 343 mg/L June 16, 1975; minimum daily mean, 1 mg/L on several days in 1977 and 1981.
SEDIMENT LOADS: Maximum daily, 5,050 tons May 18, 1984; minimum daily, 0.02 tons Aug. 4, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 579 microsiemens April 12; minimum daily, 220 microsiemens May 23.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 254 mg/L May 18; minimum daily mean, 2 mg/L Feb. 13.
SEDIMENT LOADS: Maximum daily, 5,050 tons May 18; minimum daily, 1.1 tons Jan. 12.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
15...	1422	519	12.0	46	64	88
MAY						
23...	1030	7460	11.5	64	1290	97
AUG						
31...	1835	1120	22.0	19	57	95

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	432	433	---	383	533	390	340		---	350	---
2	---	429	429	---	383	531	387	340		279	---	---
3	---	426	427	---	382	496	384	352		---	---	---
4	---	427	426	---	371	506	391	349		---	---	---
5	---	434	433	---	371	477	390	337		---	---	---
6	---	429	424	---	378	507	392	330		---	---	---
7	---	429	419	---	377	475	392	328		---	374	---
8	---	425	422	---	369	450	388	324		---	---	---
9	---	424	422	---	364	443	385	315		---	---	---
10	---	422	418	---	367	514	383	308		---	---	---
11	405	423	416	---	367	439	372	326		---	---	---
12	384	421	420	---	362	425	579	295		---	---	---
13	449	425	---	---	360	420	563	270		---	---	---
14	455	419	432	---	363	429	519	260		---	---	342
15	460	416	453	---	366	426	492	253		---	---	---
16	452	452	446	---	364	409	461	236		---	---	---
17	443	451	431	333	356	400	478	233		---	---	---
18	448	454	416	418	355	403	468	230		---	---	---
19	448	450	420	415	355	402	427	---		---	---	---
20	448	443	422	416	354	388	416	---		---	---	324
21	445	444	---	421	349	386	408	---		---	---	---
22	439	447	---	415	350	387	399	---		---	---	---
23	441	445	---	402	345	387	375	220		---	---	---
24	441	439	---	398	341	384	371	---		---	---	---
25	436	436	---	405	362	379	396	---		---	---	---
26	438	437	---	404	341	381	382	---		---	---	---
27	437	436	---	395	328	383	354	---		---	---	---
28	441	433	---	392	325	386	352	---		---	---	---
29	434	431	---	397	479	389	355	---		---	---	---
30	431	433	---	398	---	391	357	---		332	---	---
31	432	---	---	388	---	389	---	---		---	---	---
MEAN	438	434	427	400	364	430	414	297		306	362	333

WTR YR 1984 MEAN 401 MAX 579 MIN 220

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	62	110	25	13	13	29	6	8.5	5	9.2	32	65
2	64	92	22	12	14	38	6	8.5	3	5.7	22	43
3	66	97	18	11	9	26	6	13	5	9.7	19	39
4	68	112	23	20	11	32	6	15	4	7.8	25	50
5	70	106	18	19	52	166	6	14	4	7.1	28	56
6	73	93	21	26	7	22	6	12	4	6.9	35	66
7	76	91	23	31	12	33	6	13	3	5.2	20	36
8	78	80	20	23	8	20	5	11	7	12	18	33
9	80	76	14	11	12	29	5	11	4	7.4	23	43
10	82	78	17	19	7	16	5	10	5	9.2	63	108
11	84	80	18	27	7	22	5	4.1	3	5.5	18	30
12	17	16	23	34	7	19	5	1.1	3	5.5	17	34
13	18	17	23	33	8	29	5	7.7	2	3.7	12	28
14	16	15	15	21	8	26	5	17	5	9.2	16	52
15	16	13	24	34	6	19	5	17	5	9.2	14	56
16	17	11	33	47	9	27	5	17	4	7.9	13	55
17	14	9.1	13	18	8	24	5	11	5	11	14	64
18	16	9.5	14	18	15	45	6	12	5	10	14	65
19	13	8.9	13	19	10	19	8	13	7	13	9	44
20	14	11	12	19	7	1.6	7	9.3	9	17	24	123
21	14	13	10	15	7	12	7	9.7	9	18	16	82
22	16	14	12	19	7	22	7	10	6	12	17	87
23	14	13	10	19	7	22	4	6.7	5	9.5	21	104
24	19	17	10	20	7	22	5	10	9	17	17	79
25	16	13	8	12	7	22	11	22	15	30	13	50
26	16	10	10	14	7	22	8	14	9	21	9	34
27	16	9.5	10	16	7	18	6	11	10	25	16	79
28	18	11	11	19	7	15	5	10	12	28	18	96
29	23	14	9	16	7	16	7	14	19	41	9	49
30	23	13	8	16	6	12	6	11	---	---	14	65
31	26	13	---	---	6	8.4	4	7.4	---	---	9	34
TOTAL	---	1266.0	---	621	---	834.0	---	351.0	---	373.7	---	1849

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12	41	44	324	54	1120	35	320	27	40	19	48
2	18	59	46	361	53	1100	34	294	28	68	18	37
3	21	79	41	341	53	1090	34	281	29	72	18	35
4	20	91	42	339	52	1070	34	150	29	79	17	31
5	17	75	37	309	52	1050	34	74	30	78	17	31
6	5	22	37	356	51	1040	34	74	31	84	16	19
7	8	35	40	468	51	1050	34	78	31	80	16	11
8	12	54	57	756	50	1020	34	72	30	79	15	13
9	9	42	57	805	50	895	34	61	30	54	15	23
10	8	37	72	1020	49	722	34	48	29	36	14	27
11	44	263	36	558	49	665	34	43	29	34	14	26
12	22	148	82	1370	48	531	33	57	28	33	13	23
13	54	306	93	1560	48	448	33	69	28	29	13	22
14	44	229	84	1460	47	425	33	72	27	25	13	22
15	39	261	118	2090	47	423	33	73	27	50	17	34
16	51	357	82	1420	46	416	33	64	26	46	21	43
17	51	408	92	1750	46	446	33	56	26	24	25	43
18	66	649	254	5050	45	456	33	79	25	22	29	33
19	81	908	216	4340	44	504	33	96	25	18	34	20
20	69	855	178	3590	44	505	33	79	24	23	39	26
21	85	1120	140	2820	43	437	33	58	24	44	44	37
22	73	962	102	2050	42	389	32	48	23	44	49	46
23	66	848	64	1280	41	369	32	44	23	52	53	29
24	65	695	62	1240	40	366	32	39	22	49	57	20
25	59	554	60	1220	40	409	32	32	22	33	62	22
26	65	704	59	1220	39	397	32	32	21	52	66	73
27	66	770	58	1200	39	365	32	27	21	73	71	140
28	50	495	57	1210	38	349	32	20	20	65	76	99
29	54	432	56	1190	37	341	32	17	20	57	80	50
30	48	375	55	1160	36	343	32	19	19	48	84	54
31	---	---	54	1170	---	---	29	22	19	51	---	---
TOTAL	---	11874	---	44027	---	18741	---	2498	---	1542	---	1137

TOTAL LOAD FOR YEAR: 85113.7 TONS.

08317900 GALISTEO RESERVOIR NEAR CERRILLOS, NM

LOCATION.--Lat 35°27'44", long 106°12'30", in NW¼ sec.9 T.14 N., R.7 E., Sante Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, at Galisteo Dam on Galisteo Creek, 5.0 mi northwest of Cerrillos, and at mile 11.8.

DRAINAGE AREA.--596 mi^2.

PERIOD OF RECORDS.--October 1970 to current year.

GAGE.--Water-stage recorder above elevation 5,500.3 ft, nonrecording below. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity, 88,990 acre-ft between elevations 5,496.0 ft, sill of ungated outlet conduit, and 5,608.0 ft, crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft July 26, 1971, elevation, 5,517.00 ft; no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 49 acre-ft June 19, elevation, 5,504.35 ft; no storage most of time.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1972)

5,500	0	5,504	41
5,501	2	5,505	69
5,502	9	5,506	109
5,503	21	5,508	244

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	0	0	0
19	0	0	0	0	0	0	0	0	49	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	21	0
26	0	0	0	0	0	0	0	0	0	0	0	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	0	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
MAX	.00	.00	.00	.00	.00	.00	.00	.00	49	.00	21	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(†)	---	---	---	---	---	---	---	---	---	---	---	---
(††)	---	---	---	---	---	---	---	---	---	---	---	---

CAL YR 1983 MAX 166 MIN .00 (††) 0
WTR YR 1984 MAX 49 MIN .00 (††) 0

(†) ELEVATION, IN FEET, AT END OF MONTH
(††) CHANGE IN CONTENTS, AT END OF MONTH

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM

LOCATION.--Lat 35°27'53", long 106°12'49", in NE¼NE¼ sec.8, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank 0.4 mi downstream from Galisteo Dam, 5.3 mi northwest of Cerrillos, and at mile 11.4.

DRAINAGE AREA.--597 mi^2.

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,450 ft, from topographic map. Prior to Dec. 21, 1981, at site 1,200 ft downstream at different datum.

REMARKS.--Records poor. Flow regulated by Galisteo Reservoir 0.4 mi upstream. Diversions for irrigation of about 50 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--14 years, 6.19 ft^3/s, 4,480 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s July 27, 1971, gage height, 7.00 ft; maximum gage height, 7.[illegible] ft July 20, 1971; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 779 ft^3/s Aug. 25, gage height, 5.23 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.30	9.2	3.1	.10	4.7	.00	.00	.00	.78	.22
2	4.1	.00	.32	9.2	3.5	.20	4.0	.00	.00	15	.60	.16
3	.00	.00	.38	4.0	3.7	.60	3.0	.00	121	.36	.82	.08
4	.00	.00	.40	4.5	3.3	2.2	2.1	.00	5.0	.16	.49	.00
5	.00	.00	.29	5.0	3.1	2.5	2.0	.00	2.0	.06	2.1	.00
6	.00	.00	.14	4.5	2.8	1.9	5.9	.00	.00	.15	8.6	.00
7	.00	.00	.32	5.7	2.6	1.4	12	.00	.00	3.2	97	.00
8	.00	.00	.50	4.3	1.2	1.6	11	.00	.00	1.2	44	.00
9	.78	.00	.46	4.1	.20	1.7	8.4	.00	.00	.57	2.0	.00
10	.12	.00	.55	3.7	.19	1.9	6.1	.00	.00	.41	.50	.00
11	.00	.02	.49	3.3	.18	2.0	3.6	.00	.00	3.4	.00	.00
12	.00	.02	.54	3.3	.18	1.7	3.1	.00	.00	5.6	.00	.00
13	.00	.01	.39	2.0	.17	1.7	2.2	.00	.00	1.0	134	.00
14	.00	.00	.36	1.8	.16	1.8	1.0	.00	.00	.72	34	.00
15	.00	.00	.57	1.0	.15	1.9	.55	.00	36	.00	16	2.7
16	.00	.01	.38	.36	.46	1.4	.35	.00	7.0	.00	.56	.46
17	.00	.03	.81	.17	1.1	1.0	.24	.00	1.0	.00	.00	6.3
18	.00	.08	.45	.08	.64	1.4	.11	8.8	.60	.00	.00	7.6
19	.00	.10	1.2	.04	.47	1.8	.06	3.4	.00	.00	.00	1.0
20	.06	.07	1.3	.00	.35	1.6	1.7	2.0	.00	.00	.00	.50
21	.07	.15	.81	.00	.30	1.7	.61	.86	1.2	.00	.00	.00
22	.00	.14	.60	.00	.26	1.8	.43	.00	.00	.00	22	.00
23	.00	.04	.76	.00	.22	1.7	.10	.00	.00	.00	4.9	.00
24	.00	.05	.07	.00	.15	1.6	.05	.00	.00	.00	32	.00
25	.00	.13	.00	.00	.12	1.6	.04	.17	.00	.00	187	.00
26	.00	.23	.52	.50	.10	2.2	2.2	.00	.00	.00	54	.00
27	.00	.17	1.8	1.0	.09	6.7	1.8	.00	.00	.00	2.0	2.9
28	.00	.15	.73	1.4	.09	7.4	.61	.00	.00	.00	.20	1.4
29	.00	.13	.02	.49	.06	6.1	1.1	.00	.00	.00	.06	.45
30	.00	.13	.41	1.3	---	5.5	.10	.00	.00	.00	1.5	.37
31	.00	---	2.2	2.2	---	5.8	---	.00	---	.00	.70	---
TOTAL	5.13	1.66	18.07	73.14	28.94	72.50	79.15	15.23	173.80	31.83	645.81	24.14
MEAN	.17	.055	.58	2.36	1.00	2.34	2.64	.49	5.79	1.03	20.8	.80
MAX	4.1	.23	2.2	9.2	3.7	7.4	12	8.8	121	15	187	7.6
MIN	.00	.00	.00	.00	.06	.10	.04	.00	.00	.00	.00	.00
AC-FT	10	3.3	36	145	57	144	157	30	345	63	1280	48

CAL YR 1983 TOTAL 976.08 MEAN 2.67 MAX 104 MIN .00 AC-FT 1940
WTR YR 1984 TOTAL 1169.40 MEAN 3.20 MAX 187 MIN .00 AC-FT 2320

08319000 RIO GRANDE AT SAN FELIPE, NM
(Surveillance network station)

LOCATION.--Lat 35°26'39", long 106°26'23", in SW¼NW¼ sec.17, T.14 N., R.5 E., Sandoval County, Hydrologic Unit 13020201, in San Felipe Grant, on right bank 200 ft downstream from Tonque Arroyo, 1,700 ft upstream from steel highway bridge, 0.8 mi upstream from San Felipe Pueblo, 11 mi northeast of Bernalillo, and at mile 1,572.7.

DRAINAGE AREA.--16,100 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1926-30, WSP 1392: 1937(M), WSP 1512: 1931-32, 1933(M), 1934-36, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 5,115.73 ft National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1957, at site 1,800 ft downstream at datum 5.35 ft lower, except period May 16, 1945 to Sept. 30, 1946 when it was 5.94 ft lower than present datum.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 17 mi upstream. Prior to November 1973 some regulation of flow by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 705,000 acres above station, some of which is irrigated below by Cochiti eastside main canal and San Felipe eastside acequia, which bypass station.

AVERAGE DISCHARGE.--48 years (water years 1926-73), 1,374 ft^3/s, 995,500 acre-ft/yr prior to closure of Cochiti Dam.
11 years (water years 1974-84), 1,399 ft^3/s, 1,014,000 acre-ft/yr since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,300 ft^3/s June 26, 1937, gage height, 11.13 ft site and datum then in use, from rating curve extended above 15,000 ft^3/s; minimum, 32 ft^3/s July 7, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,220 ft^3/s at 1345 hours May 31, gage height, 7.48 ft; minimum daily, 191 ft^3/s Jan. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	813	329	876	624	753	794	1500	3280	7700	3750	500	1160
2	740	329	965	624	763	766	1430	3310	7710	3540	913	940
3	665	336	1130	781	792	783	1500	3550	7910	3430	968	740
4	768	402	1120	1030	786	792	1850	3410	7720	2290	1080	680
5	740	489	1220	1010	746	774	1810	3460	7650	900	1130	749
6	647	547	1230	857	695	755	1830	3810	7620	860	1110	632
7	587	605	1150	927	695	752	1850	4400	7710	900	1360	370
8	567	610	1040	925	700	758	1880	4840	7590	850	1300	340
9	519	444	1030	913	740	785	1970	5050	6940	790	1100	576
10	471	481	967	874	740	824	1980	5040	5850	609	800	868
11	473	615	1110	632	740	771	2190	5310	5350	539	700	883
12	473	605	1100	191	741	844	2530	5890	4670	584	710	849
13	474	587	1400	314	740	923	2350	5990	3810	776	600	862
14	474	587	1280	1250	740	1130	2180	6100	3660	751	560	887
15	463	584	1280	1270	739	1430	2460	6330	3610	750	800	964
16	357	584	1230	1280	750	1480	2720	6190	3640	716	770	1080
17	383	583	1210	1130	853	1550	2820	6590	3790	598	550	993
18	344	546	1210	911	825	1610	3430	7060	4000	620	540	835
19	357	580	1060	775	733	1680	3910	7130	4340	900	450	438
20	417	638	265	585	741	1790	4420	7200	4630	872	700	399
21	463	641	456	587	801	1840	4830	7190	4040	593	900	468
22	462	595	1230	623	766	1870	4970	7160	3740	555	1100	569
23	463	710	1220	661	760	1880	5000	7130	3560	470	1200	440
24	460	788	1240	820	733	1780	4470	7160	3640	450	1250	302
25	454	716	1240	854	766	1620	3980	7280	3960	400	1110	279
26	376	565	1250	718	827	1450	4280	7380	4100	390	1230	401
27	351	631	1130	768	952	1880	4680	7440	3780	350	1450	940
28	348	715	948	839	911	2000	4230	7510	3670	300	1390	830
29	346	716	950	839	841	2030	3500	7670	3690	290	1220	403
30	344	760	933	801	---	1890	3400	7670	3790	350	1190	381
31	330	---	642	753	---	1590	---	7900	---	450	1120	---
TOTAL	15129	17318	33112	25166	22369	40821	89950	185430	153870	29623	29801	20258
MEAN	488	577	1068	812	771	1317	2998	5982	5129	956	961	675
MAX	813	788	1400	1280	952	2030	5000	7900	7910	3750	1450	1160
MIN	330	329	265	191	695	752	1430	3280	3560	290	450	279
AC-FT	30010	34350	65680	49920	44370	80970	178400	367800	305200	58760	59110	40180
(†)	4370	1320	0	0	0	2740	4040	4160	4140	3940	1350	3770

CAL YR 1983 TOTAL 738620 MEAN 2024 MAX 6990 MIN 201 AC-FT 1465000
WTR YR 1984 TOTAL 662847 MEAN 1811 MAX 7910 MIN 191 AC-FT 1315000

(†) MONTHLY DIVERSION, IN ACRE-FEET, OF COCHITI EASTSIDE CANAL; RECORDS OF THIS FLOW FURNISHED BY MIDDLE RIO GRANDE CONSERVANCY DISTRICT.

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
NOV 07...	0945	624	380	378	8.2	8.1	14.5	11.0	9.3	16	150
JAN 06...	1000	811	340	--	8.0	--	3.5	1.0	12.8	15	--
MAR 12...	1130	807	300	338	8.1	8.0	14.5	6.0	12.0	18	130
MAY 07...	1230	4470	265	278	8.1	7.9	16.5	14.0	9.7	20	100
JUL 09...	1400	781	280	289	7.8	8.1	32.0	22.0	7.5	41	110
SEP 17...	1015	1020	335	--	7.8	--	21.0	19.5	7.7	20	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
NOV 07...	20	47	8.1	24	.9	2.9	160	--	130	44	6.6
JAN 06...	--	--	--	--	--	--	130	.000	110	--	--
MAR 12...	7	39	6.8	19	.8	2.6	120	12	120	41	6.4
MAY 07...	15	32	6.0	13	.6	2.3	110	--	86	45	3.7
JUL 09...	22	35	6.0	15	.6	2.5	110	.000	87	48	3.6
SEP 17...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 07...	.50	15	230	<.10	<.10	.050	.65	--	.060	.010	3.5
JAN 06...	--	--	--	<.10	<.10	<.010	--	--	.010	.030	2.7
MAR 12...	.40	21	220	<.10	<.10	.050	.45	--	.070	.020	2.2
MAY 07...	.30	17	170	<.10	<.10	.040	.46	--	.070	.030	5.0
JUL 09...	.20	16	180	.10	<.10	.030	.47	.60	.060	.020	3.6
SEP 17...	--	--	--	<.10	<.10	.020	.18	--	.070	.020	3.9

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV 07...	0945	2	2	50	1	<1	<10	<10	8	1
MAR 12...	1130	--	--	30	--	--	--	--	--	--
MAY 07...	1230	--	--	20	--	--	--	--	--	--
JUL 09...	1400	1	2	30	<1	<1	<10	<10	8	3

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 07...	8	2	<1	<.1	<.1	<1	<1	30	5
MAR 12...	6	--	--	--	--	--	--	--	--
MAY 07...	26	--	--	--	--	--	--	--	--
JUL 09...	15	6	<1	<.1	<.1	<1	<1	40	12

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV 07...	0945	<2.0	6.1	460	2	<1	2

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV 07...	<10	4	2300	<10	250	.20	10

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV 07...	0945	<6.2	1.7	5.6	2.8	4.8	2.4	.09	3.7

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
MAR 12...	1130	--	--	--	--	--	--	--	--	--
SEP 17...	1015	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAR 12...	--	--	--	--	--	--	--	--	--
SEP 17...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 12...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 17...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 07...	0945	140	K390
JAN 06...	1000	K7	30
MAR 12...	1130	K3	41
MAY 07...	1230	42	92
JUL 09...	1400	E29	120
SEP 17...	1015	42	77

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 07...	0945	624	11.0	121	204	63
JAN 06...	1000	811	1.0	35	77	89
MAR 12...	1130	807	6.0	53	115	89
MAY 07...	1230	4470	14.0	144	1740	31
JUL 09...	1400	781	22.0	72	152	87
SEP 17...	1015	1020	19.5	60	165	63

08319945 REDONDO CREEK NEAR JEMEZ SPRINGS, NM

LOCATION.--Lat 35°52'34", long 106°37'50", in SW¼ sec.16, T.19 N., R.3 E, Sandoval County, Hydrologic Unit 13020202, on left bank 0.1 mi upstream from Sulphur Creek, 0.7 mi northeast of intersection of State Highways 7 and 126, and 8.0 mi northeast of Jemez Springs.

DRAINAGE AREA.--12.1 mi^2.

PERIOD OF RECORD.--November 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,755 ft from topographic map.

REMARKS.--Records good except those above 10 ft^3/s, which are fair and those for winter months and July, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19 ft^3/s Aug. 21, 1984, gage height, 2.04 ft; maximum gage height, 2.22 ft Apr. 25, 1983; minimum daily, 0.18 ft^3/s Jan. 4, 1982, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 ft^3/s at 0400 hours Aug. 21, gage height, 2.04 ft; minimum daily, 0.30 ft^3/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	.67	.72	.95	.80	1.2	1.7	4.3	2.4	.92	.42	.82
2	2.6	.67	.80	1.0	.80	1.1	1.4	4.4	2.3	.96	.41	.84
3	1.4	.65	.82	.95	.86	1.0	1.9	4.7	2.3	.90	.42	.87
4	1.2	.66	.80	.92	.84	1.0	2.4	5.3	2.3	.88	.36	.84
5	1.1	.66	.80	.95	.84	.96	3.6	5.9	2.6	.84	.92	.77
6	1.2	.63	.70	.95	.84	.94	3.2	6.5	2.3	.80	1.9	.71
7	.98	.63	.80	.95	.85	.90	2.9	6.7	2.0	.90	.67	.67
8	1.0	.81	.85	.95	.85	.90	3.1	5.9	1.8	.80	.70	.63
9	1.2	.86	.95	.98	.90	.95	3.0	5.4	1.7	.70	.63	.60
10	1.0	.98	.95	.98	.95	1.0	3.5	4.8	1.5	1.2	.57	.59
11	1.0	.90	.95	.90	1.0	1.0	3.0	4.4	1.4	1.4	.56	.61
12	.97	.74	.92	.90	1.1	1.0	3.1	4.0	1.3	2.4	.72	.65
13	.97	.69	.90	.85	1.2	1.1	3.2	3.6	1.3	1.0	1.7	.60
14	.95	.65	.85	.85	1.3	1.1	3.5	3.3	1.3	.80	.99	.62
15	.92	.67	.82	.82	1.2	1.3	4.0	3.4	1.2	.60	2.0	.62
16	.92	.81	.82	.80	1.1	1.4	4.5	3.4	1.2	1.1	1.7	1.5
17	.92	.95	.80	.84	1.0	2.0	5.2	3.2	1.2	1.0	.94	1.1
18	.90	.76	.90	.70	.95	1.3	5.9	3.0	2.2	.80	.62	.84
19	.88	.70	1.0	.72	.90	1.6	6.1	3.0	1.5	.85	.62	.72
20	1.0	.72	.98	.75	.85	2.2	6.1	3.1	1.2	.70	.96	.43
21	.88	.75	.95	.76	.85	2.7	5.6	3.0	1.0	.60	3.9	.35
22	.77	.78	1.0	.80	.85	1.9	5.9	3.1	.97	.58	1.2	.30
23	.73	.80	.95	.82	.90	1.7	4.9	3.0	.97	.54	1.7	.32
24	.72	.82	.92	.84	.90	2.2	4.7	3.0	1.2	.52	1.8	.45
25	.72	.82	.90	.84	.90	1.5	4.9	2.9	1.1	.58	2.0	.42
26	.70	.85	.95	.84	.90	2.2	4.9	2.9	.97	.56	1.4	.95
27	.71	.82	.90	.84	1.0	3.6	5.1	2.8	.98	.64	1.2	.71
28	.72	.77	.70	.82	1.1	2.2	4.5	2.7	.97	.58	1.1	.48
29	.71	.70	.75	.85	1.1	1.9	4.5	2.6	.90	.54	1.1	.46
30	.67	.68	.80	.86	---	1.4	4.3	2.5	.90	.49	.85	.44
31	.67	---	.90	.84	---	1.5	---	2.5	---	.39	.81	---
TOTAL	31.71	22.60	26.85	26.82	27.63	46.75	120.6	119.3	44.96	25.57	34.87	19.91
MEAN	1.02	.75	.87	.87	.95	1.51	4.02	3.85	1.50	.82	1.12	.66
MAX	2.6	.98	1.0	1.0	1.3	3.6	6.1	6.7	2.6	2.4	3.9	1.5
MIN	.67	.63	.70	.70	.80	.90	1.4	2.5	.90	.39	.36	.30
AC-FT	63	45	53	53	55	93	239	237	89	51	69	39

CAL YR 1983 TOTAL 890.58 MEAN 2.44 MAX 15 MIN .30 AC-FT 1770
WTR YR 1984 TOTAL 547.57 MEAN 1.50 MAX 6.7 MIN .30 AC-FT 1090

NOTE: No gage-height record Nov. 28 to Mar. 14.

08319950 SULPHUR CREEK NR JEMEZ SPRINGS, NM

LOCATION.--Lat 35°52'14", long 106°38'17", in NE¼ sec.20, T.19 N., R.3 E., Sandoval County, Hydrologic Unit 13020202, on left bank 300 ft downstream from culvert under State Highway 4, 0.2 mi north at intersection of State Highways 4 and 126, 0.4 mi upstream from San Antonio Creek, and 7.5 mi northeast of Jemez Springs, NM.

DRAINAGE AREA.--38.0 mi^2.

PERIOD OF RECORD.--November 1981 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,650 ft from topographic map.

REMARKS.--Records good except those for winter months, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130 ft^3/s Apr. 25, 1983, gage height, 2.86 ft; minimum daily, 0.04 ft^3/s July 27, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft^3/s at 1945 hours Apr. 16, gage height, 1.80 ft; minimum, 0.37 ft^3/s Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	1.6	1.4	1.4	.94	1.4	4.5	7.5	3.8	1.1	.67	1.2
2	4.7	1.6	1.4	1.3	.94	1.3	3.9	7.3	3.7	1.1	.66	1.2
3	2.7	1.6	1.4	1.3	1.0	1.2	4.2	7.4	3.7	.99	.74	1.1
4	2.2	1.6	1.3	1.3	1.0	1.1	5.0	8.8	3.7	.96	.81	1.0
5	2.0	1.6	1.2	1.3	1.0	1.0	6.6	11	3.8	.95	1.3	1.0
6	2.1	1.5	1.1	1.4	.96	.98	7.3	12	3.8	.91	4.2	.97
7	1.8	1.5	1.2	1.3	.98	.96	8.1	13	3.7	1.1	1.7	.84
8	1.9	1.7	1.3	1.3	1.0	1.0	11	11	3.5	1.0	1.3	.80
9	2.3	1.7	1.5	1.3	1.1	1.0	12	9.8	3.4	.87	1.2	.76
10	2.0	1.8	1.6	1.4	1.2	1.1	12	9.2	3.4	1.4	1.2	.74
11	2.0	1.9	1.6	1.2	1.2	1.2	12	9.3	3.4	1.8	1.1	.76
12	1.8	1.8	1.5	1.1	1.3	1.3	14	9.1	3.2	2.6	1.3	.84
13	1.8	1.7	1.5	1.1	1.4	1.7	16	8.5	3.2	4.4	2.6	.85
14	1.8	1.6	1.4	1.1	1.5	2.3	18	7.8	3.2	1.5	2.0	.92
15	1.8	1.5	1.4	1.0	1.3	2.8	20	7.0	3.2	1.1	4.8	.98
16	1.7	1.4	1.3	1.0	1.2	3.4	21	7.1	3.2	2.3	3.7	2.6
17	1.7	1.4	1.3	1.1	1.1	3.9	22	6.1	3.1	2.0	2.2	1.9
18	1.7	1.4	1.3	.92	1.0	3.6	20	5.5	3.1	1.4	1.8	1.2
19	1.7	1.5	1.4	.94	1.0	3.5	18	5.1	3.7	1.7	1.7	.97
20	2.0	1.3	1.4	.96	.96	4.3	17	4.8	2.0	.97	2.0	.75
21	1.9	1.5	1.3	.96	.94	5.4	15	4.6	1.5	.76	4.0	.67
22	1.8	1.4	1.4	.96	.96	4.7	14	4.5	1.3	.71	1.8	.55
23	1.7	1.3	1.3	.98	.98	3.6	13	4.5	1.2	.68	2.6	.52
24	1.7	1.2	1.2	1.0	1.0	4.1	11	4.5	1.1	.64	3.0	.63
25	1.6	1.2	1.2	1.0	1.0	4.1	11	4.3	2.4	.68	2.8	.53
26	1.6	1.2	1.3	1.0	1.1	2.9	11	4.1	1.6	.65	2.1	1.4
27	1.6	1.2	1.2	.98	1.1	3.2	10	4.1	1.4	.77	1.8	1.5
28	1.7	1.2	1.0	.96	1.2	3.6	9.8	4.0	1.3	.78	1.7	.95
29	1.7	1.2	1.1	.94	1.3	5.9	9.5	4.0	1.2	.62	1.7	.81
30	1.7	1.3	1.2	.94	---	4.3	8.5	4.0	1.2	.69	1.6	.74
31	1.7	---	1.2	.94	---	4.6	---	3.9	---	.60	1.5	---
TOTAL	62.7	44.4	40.9	34.38	31.66	85.44	365.4	213.8	82.0	37.73	61.58	29.68
MEAN	2.02	1.48	1.32	1.11	1.09	2.76	12.2	6.90	2.73	1.22	1.99	.99
MAX	4.7	1.9	1.6	1.4	1.5	5.9	22	13	3.8	4.4	4.8	2.6
MIN	1.6	1.2	1.0	.92	.94	.96	3.9	3.9	1.1	.60	.66	.52
AC-FT	124	88	81	68	63	169	725	424	163	75	122	59

CAL YR 1983 TOTAL 2015.18 MEAN 5.52 MAX 62 MIN .68 AC-FT 4000
WTR YR 1984 TOTAL 1089.67 MEAN 2.98 MAX 22 MIN .52 AC-FT 2160

NOTE: No gage-height record Nov. 23 to Mar. 14.

08321500 JEMEZ RIVER BELOW EAST FORK, NEAR JEMEZ SPRINGS, NM

LOCATION.--Lat 35°49'39", long 106°38'52", in NW¼ sec.5, T.18 N., R.3 E., Sandoval County, Hydrologic Unit 13020202, on left bank 0.4 mi downstream from East Fork and boundary of Santa Fe National Forest, 5.3 mi northeast of Jemez Springs, and at mile 43.0.

DRAINAGE AREA.--173 mi^2.

PERIOD OF RECORD.--July 1949 to October 1950 (gaged separately above East Fork), May 1951 to September 1957 (irrigation seasons only), March 1958 to September 1976, July 1981 to current year.

REVISED RECORDS.--WSP 1512: 1951-54(M), 1955, 1956(M). WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,702.7 ft above mean sea level. Prior to May 1951, at sites 3,000 ft upstream, at different datums and on separate channels.

REMARKS.--Records good except those for winter months, which are poor. No diversion above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1950, 1959-76, 1982-84), 30.0 ft^3/s, 21,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 2,500 ft^3/s Apr. 21, 1958, gage height, 7.35 ft, from rating curve extended above 1,100 ft^3/s on basis of slope-area and contracted-opening measurements of peak flow; minimum, 0.91 ft^3/s Jan. 24, 1969, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Mar. 22	1845	350	2.62	Aug. 13	1815	103	1.89
Apr. 9	0415	*353	2.73	Aug. 20	2200	103	1.90

Minimum discharge, 11.0 ft^3/s Dec. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	24	24	23	24	29	71	88	34	25	23	18
2	55	24	25	22	24	31	57	82	35	25	18	18
3	50	24	24	21	23	32	48	80	34	23	18	18
4	31	24	24	23	24	31	66	83	35	22	19	18
5	26	24	16	24	23	30	77	94	37	22	20	17
6	25	24	18	23	23	32	147	99	48	21	35	17
7	24	24	20	23	23	35	204	98	40	21	26	16
8	25	25	23	23	23	34	198	94	32	20	23	14
9	47	27	21	23	23	35	273	88	31	20	18	14
10	48	27	23	23	23	37	142	83	30	28	17	14
11	30	25	23	22	23	40	223	80	28	36	16	14
12	26	25	23	24	19	37	227	79	28	33	17	15
13	24	25	22	23	21	44	247	77	28	27	23	15
14	24	24	19	24	22	49	250	73	28	25	22	16
15	24	22	22	23	22	53	223	69	28	22	31	15
16	24	22	20	23	21	58	206	73	29	26	26	21
17	24	22	20	24	22	67	201	70	28	27	25	21
18	24	25	22	23	23	81	202	65	35	25	19	18
19	23	24	23	22	22	76	177	57	31	22	18	16
20	26	20	22	24	26	96	166	53	31	19	26	15
21	27	29	18	24	24	164	173	50	29	18	33	16
22	26	20	15	23	24	261	165	46	26	18	25	17
23	24	23	16	22	26	174	170	43	25	18	24	16
24	23	23	16	22	25	138	129	43	26	18	31	15
25	23	26	16	22	27	176	115	41	33	18	31	15
26	23	25	18	22	26	118	110	38	30	18	35	18
27	23	23	19	24	26	85	107	36	27	17	25	21
28	24	24	17	24	27	76	122	35	27	17	22	19
29	24	22	24	24	28	74	114	34	26	17	20	19
30	24	23	24	24	---	75	106	33	26	17	19	18
31	24	---	23	23	---	66	---	33	---	18	18	---
TOTAL	880	719	640	714	687	2334	4716	2017	925	683	723	504
MEAN	28.4	24.0	20.6	23.0	23.7	75.3	157	65.1	30.8	22.0	23.3	16.8
MAX	55	29	25	24	28	261	273	99	48	36	35	21
MIN	23	20	15	21	19	29	48	33	25	17	16	14
AC-FT	1750	1430	1270	1420	1360	4630	9350	4000	1830	1350	1430	1000

CAL YR 1983 TOTAL 19899 MEAN 54.5 MAX 767 MIN 15 AC-FT 39470
WTR YR 1984 TOTAL 15542 MEAN 42.5 MAX 273 MIN 14 AC-FT 30830

08323000 RIO GUADALUPE AT BOX CANYON, NEAR JEMEZ, NM

LOCATION.--Lat 35°43'52", long 106°45'44", Sandoval County, Hydrologic Unit 13020202, in Canon de San Diego Grant, on left bank at downstream end of Guadalupe Box Canyon, 4.8 mi upstream from mouth, 5 mi southwest of Jemez Springs, and 7 mi north of Jemez.

DRAINAGE AREA.--235 mi^2.

PERIOD OF RECORD.--November 1938 to September 1942, August 1949 to September 1950, (monthly discharge only for November, December 1938 and August 1949 published in WSP 1312), May 1951 to September 1957 (irrigation seasons only), May 1958 to September 1976, July 1981 to current year. Prior to 1951 published as "08323500 Rio Guadalupe near Jemez Springs".

REVISED RECORDS.--WSP 1712. Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,015.5 ft above mean sea level. Prior to 1951 at site 2.4 mi downstream at lower datums.

REMARKS.--Records good except those for May, which are fair and those for winter months, which are poor. Flow regulated to some extent since October 1958 by San Gregorio Reservoir on Clear Creek, 24 mi upstream (capacity, 345 acre-ft), and by transmountain diversion into Rio Puerco Basin for irrigation of about 300 acres in vicinity of Cuba. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years (water years 1939-42, 1950, 1959-76, 1982-1984), 45.2 ft^3/s, 32,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,190 ft^3/s May 13 or 14, 1941, gage height, 8.4 ft from floodmarks, site and datum in use June 1941 to September 1942, from rating curve extended above 1,000 ft^3/s; minimum, 2.8 ft^3/s Dec. 9, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Apr. 19	0030	344	5.27	June 5	2200	614	5.90
May 15	0015	*940	6.81				

Minimum daily discharge, 9.0 ft^3/s Sept. 10, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	17	20	17	16	17	55	155	123	27	23	13
2	45	17	20	17	16	18	50	177	113	25	25	13
3	34	17	20	17	15	20	49	181	97	23	22	12
4	25	17	20	17	16	20	51	225	110	21	21	11
5	21	17	18	17	16	21	60	258	122	21	22	11
6	19	17	17	18	16	20	73	282	184	21	24	11
7	18	17	15	17	16	21	85	267	106	21	28	9.8
8	18	18	17	17	16	20	96	233	81	22	23	9.6
9	22	20	19	17	16	21	116	240	67	21	20	9.2
10	26	19	20	17	16	22	94	279	60	22	19	9.0
11	20	19	19	16	16	24	101	335	52	21	19	9.0
12	18	19	19	15	15	25	98	398	48	22	18	9.5
13	17	20	18	15	16	29	117	428	42	32	23	10
14	17	20	17	15	17	35	148	436	40	30	28	10
15	17	18	16	15	16	42	176	565	40	25	36	11
16	17	16	16	15	15	48	197	501	40	25	27	11
17	17	17	16	14	16	53	215	427	37	38	24	11
18	16	19	16	13	16	59	254	338	34	38	22	11
19	16	19	16	13	15	53	290	299	34	29	19	11
20	17	16	16	13	17	55	260	271	57	27	19	10
21	18	20	16	14	16	66	202	272	38	25	29	10
22	19	18	17	14	16	79	176	257	29	24	20	11
23	17	18	17	14	16	64	172	256	26	23	19	11
24	17	17	17	14	15	58	180	254	25	25	27	10
25	17	16	17	15	17	64	203	221	24	25	25	10
26	16	16	17	15	16	55	196	196	24	23	20	11
27	19	16	16	16	16	56	174	171	23	22	19	13
28	18	16	15	16	17	54	161	152	25	21	18	13
29	19	17	14	16	17	52	149	139	25	22	16	12
30	18	18	15	16	---	56	142	123	27	21	15	11
31	17	---	16	16	---	49	---	121	---	23	14	---
TOTAL	640	531	532	481	464	1276	4340	8457	1753	765	684	324.1
MEAN	20.6	17.7	17.2	15.5	16.0	41.2	145	273	58.4	24.7	22.1	10.8
MAX	45	20	20	18	17	79	290	565	184	38	36	13
MIN	16	16	14	13	15	17	49	121	23	21	14	9.0
AC-FT	1270	1050	1060	954	920	2530	8610	16770	3480	1520	1360	643

CAL YR 1983 TOTAL 32706.0 MEAN 89.6 MAX 626 MIN 12 AC-FT 64870
WTR YR 1984 TOTAL 20247.1 MEAN 55.3 MAX 565 MIN 9.0 AC-FT 40160

08324000 JEMEZ RIVER NEAR JEMEZ, NM

LOCATION.--Lat 35°39'42", long 106°44'34", Sandoval County, Hydrologic Unit 13020202, in Canon de San Diego Grant, on left bank 0.7 mi downstream from Rio Guadalupe, 3.5 mi north of Jemez, and at mile 29.5.

DRAINAGE AREA.--470 mi^2.

PERIOD OF RECORD.--June 1936 to May 1941, August 1949 to October 1950, May 1951 to September 1952 (irrigation seasons only), March 1953 to current year. Monthly discharge only for some periods, published in WSP 1732. Published as Jemez Creek near Jemez, 1936-41.

REVISED RECORDS.--WSP 1712: Drainage area. WSP 1923, 1957-58.

GAGE.--Water-stage recorder. Concrete control since Dec. 6, 1965. Datum of gage is 5,622.3 ft National Geodetic Vertical Datum of 1929. June 22, 1936 to Mar. 11, 1937, at site 60 ft upstream at datum 0.50 ft higher. Mar. 12, 1937, to July 8, 1938, at present site at datum 0.7 ft higher. July 9, 1938, to May 6, 1941, at site 60 ft upstream at datum 0.70 ft higher.

REMARKS.--Records good except those for winter months, which are fair. Diversions for irrigation of about 300 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years (water years 1937-40, 1950, 1954-84), 72.1 ft^3/s, 52,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft^3/s Apr. 21, 1958, from rating curve extended above 2,200 ft^3/s on basis of contracted-opening measurement; maximum gage height, 8.6 ft, May 6, 1941, present datum; minimum, 1.2 ft^3/s July 25, 1981.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft^3/s), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 705 ft^3/s at 0100 May 15, gage height, 6.05 ft, no peak above base of 1,000 ft^3/s; minimum, 7.6 ft^3/s Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	26	30	34	36	39	112	234	140	40	37	28
2	72	25	33	35	38	41	97	249	130	38	33	28
3	67	25	32	26	35	41	82	253	116	33	31	26
4	47	25	33	33	37	41	99	294	110	32	33	27
5	35	24	28	37	36	41	118	328	130	31	52	27
6	32	23	17	37	36	35	178	368	207	29	60	24
7	32	22	25	35	36	38	254	374	130	31	39	22
8	35	22	31	35	36	38	254	353	104	30	34	22
9	47	27	30	35	35	38	336	363	88	27	30	20
10	62	26	32	36	37	39	226	402	79	26	29	19
11	46	26	32	32	37	43	281	444	67	45	29	22
12	37	26	33	35	31	40	297	470	60	40	59	22
13	33	26	28	30	35	46	331	488	52	44	48	23
14	32	25	28	37	36	53	352	463	51	41	60	23
15	35	24	32	34	35	59	358	532	53	36	55	25
16	34	23	23	34	31	64	365	507	55	45	47	33
17	35	23	29	35	37	72	383	445	48	62	38	31
18	33	26	32	26	38	88	411	371	53	59	31	24
19	32	28	31	30	30	80	428	338	53	43	32	23
20	36	23	32	31	38	86	392	310	68	36	35	21
21	37	30	29	34	35	126	355	305	55	30	37	20
22	35	26	25	32	36	247	319	296	44	26	32	21
23	32	27	26	34	38	206	320	286	39	27	35	20
24	30	22	26	33	34	164	289	283	40	26	36	21
25	29	30	26	34	40	206	292	251	41	29	35	21
26	29	30	30	36	37	155	288	224	42	26	35	25
27	31	27	36	37	34	120	266	197	35	24	35	31
28	28	22	34	36	36	110	267	175	37	25	35	34
29	29	26	21	36	38	106	250	156	38	26	33	31
30	28	26	27	36	---	112	241	140	41	25	32	29
31	27	---	32	36	---	95	---	138	---	36	31	---
TOTAL	1173	761	903	1051	1038	2669	8241	10037	2206	1068	1188	743
MEAN	37.8	25.4	29.1	33.9	35.8	86.1	275	324	73.5	34.5	38.3	24.8
MAX	72	30	36	37	40	247	428	532	207	62	60	34
MIN	27	22	17	26	30	35	82	138	35	24	29	19
AC-FT	2330	1510	1790	2080	2060	5290	16350	19910	4380	2120	2360	1470

CAL YR 1983 TOTAL 52536 MEAN 144 MAX 1280 MIN 17 AC-FT 104200
WTR YR 1984 TOTAL 31078 MEAN 84.9 MAX 532 MIN 17 AC-FT 61640

08324000 JEMEZ RIVER NEAR JEMEZ, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
MAR										
01...	1000	38	410	--	--	--	--	3.0	--	--
01...	1330	38	440	--	--	--	--	9.0	--	--
14...	1300	47	348	399	8.3	8.2	20.0	9.5	110	0
MAY										
15...	1430	477	150	153	8.2	8.0	22.5	11.0	57	0

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
MAR										
01...	--	--	--	--	--	--	>46	--	--	--
01...	--	--	--	--	--	--	>48	--	--	--
14...	36	4.2	36	2	6.0	16	18	.70	32	250
MAY										
15...	20	1.8	6.5	.4	1.7	12	5.7	.20	14	99

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MAR			
14...	1300	320	72
MAY			
15...	1430	70	130

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¼SW¼ sec.32, T.14 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, at corner of outlet works control tower of Jemez Canyon Dam on Jemez River, 2.8 mi upstream from mouth, and 6 mi north of Bernalillo.

DRAINAGE AREA.--1,034 mi^2.

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 176,200 acre-ft, from capacity table adapted June 1, 1975, between elevations 5,125.0 ft sill of outlet gates and 5,252.3 ft operating deck of spillway. Maximum controlled capacity, 106,100 acre-ft at elevation 5,232.0 ft (floor of spillway which is located about 0.8 mi south of dam). Capacity by original survey was 189,100 acre-ft. Original plan for reservoir operation was to desilt all flow above 30 ft^3/s by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,220 acre-ft June 8, 1958, elevation, 5,213.36 ft; no storage most of time prior to March 1979.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,327 acre-ft May 17, elevation, 5,166.45 ft; minimum contents, 553 acre-ft Dec. 7, elevation, 5,153.46 ft.

Capacity tables, (elevation, in feet, and contents, in acre-feet)

5,137	1	5,150	179	5,175	9,540
5,138	2	5,155	811	5,180	13,710
5,140	6	5,160	1,980	5,185	18,620
5,142	13	5,165	3,700	5,190	24,190
5,146	30	5,170	6,180	5,195	30,450

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2723	2511	617	2609	2274	2488	2576	3282	2770	2326	2280	2361
2	2885	2501	636	2702	2299	2498	2472	3090	2816	2311	2271	2355
3	2902	2488	698	2716	2317	2504	2501	3090	2857	2317	2289	2348
4	2784	2479	767	2656	2333	2514	2491	3038	2770	2317	2320	2342
5	2635	2469	742	2619	2352	2531	2514	3093	2582	2317	2352	2333
6	2504	2459	605	2586	2368	2544	2656	3152	2646	2323	2399	2326
7	2475	2447	553	2547	2383	2553	2945	3256	2730	2336	2531	2317
8	2518	2434	643	2511	2396	2566	3260	3320	2656	2348	2795	2308
9	2566	2434	725	2498	2415	2569	3475	3252	2576	2345	2569	2295
10	2622	2450	826	2501	2418	2540	3413	3196	2509	2333	2323	2283
11	2629	2469	931	2501	2415	2508	3301	3260	2521	2317	2333	2271
12	2586	2488	1004	2498	2411	2491	3290	3424	2504	2311	2342	2262
13	2592	2508	1081	2482	2411	2475	3309	3593	2481	2317	2415	2250
14	2582	2514	1166	2463	2405	2479	3260	3727	2463	2326	2511	2241
15	2573	2524	1234	2443	2405	2498	3215	3930	2479	2336	2747	2235
16	2560	2540	1301	2469	2408	2527	3238	4196	2518	2345	2791	2229
17	2547	2553	1366	2514	2408	2589	3271	4327	2556	2764	2463	2271
18	2531	2560	1433	2498	2415	2649	3313	4268	2582	3343	2482	2302
19	2514	2534	1566	2443	2424	2696	3443	4094	2599	3006	2501	2305
20	2560	2508	1672	2418	2434	2726	3581	3930	2540	2511	2537	229
21	2606	2495	1750	2411	2443	2716	3585	3743	2547	2469	2702	2289
22	2615	2482	1837	2405	2453	2784	3589	3498	2588	2411	2822	2280
23	2622	2305	1908	2418	2459	2931	3573	3252	2606	2377	2984	2271
24	2612	2042	1965	2440	2466	2956	3226	2970	2625	2361	3129	2262
25	2596	1813	2022	2498	2469	2977	2885	2812	2673	2345	2805	2253
26	2582	1620	2071	2612	2472	3086	3140	2784	2639	2333	2482	2280
27	2569	1445	2235	2609	2479	3100	3405	2760	2553	2323	2333	2336
28	2553	1278	2342	2450	2482	3064	3550	2733	2527	2314	2345	2364
29	2544	1050	2371	2292	2485	3111	3694	2666	2450	2308	2355	2374
30	2534	778	2431	2232	---	3053	4090	2615	2389	2299	2364	2383
31	2521	---	2518	2250	---	2809	---	2696	---	2289	2368	---
MAX	2902	2560	2518	2716	2485	3111	4090	4327	2857	3343	3129	2383
MIN	2475	778	553	2232	2274	2475	2472	2615	2389	2289	2271	2229
(†)	5161.76	5154.82	5161.75	5160.90	5161.65	5162.62	5165.92	5162.29	5161.35	5161.03	5161.28	5161.33
(††)	-52	-1743	+1740	-268	+235	+324	+1281	-1394	-307	-100	+79	+15

CAL YR 1983 MAX 7830 MIN 553 (††) +653
WTR YR 1984 MAX 4327 MIN 553 (††) -190

(†) ELEVATION, IN FEET, AT END OF MONTH.
(††) CHANGE IN CONTENTS, IN ACRE-FEET.

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¼ sec.5, T.13 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, on right bank 0.8 mi downstream from Jemez Canyon Dam, 2.0 mi upstream from mouth, and 6 mi north of Bernalillo.

DRAINAGE AREA.--1,038 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to January 1938, March 1943 to current year. Published as "Jemez Creek" prior to 1948, and as "near Bernalillo" prior to 1954.

REVISED RECORDS.--WSP 1178: 1949. WSP 1212: 1950. WSP 1512: 1936, 1943, 1945, 1947-48, 1949(M), 1950. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,095.60 ft National Geodetic Vertical Datum of 1929, from Corps of Engineers bench mark. Prior to Apr. 24, 1951, at site 0.8 mi upstream at datum 24.51 ft higher. Apr. 24, 1951, to June 25, 1958, at site 37 ft upstream at datum 4.40 ft above present datum. Supplementary water-stage recorder at gages on Jemez Canyon Dam at datum 5,125.00 ft above mean sea level (Corps of Engineers bench mark) used at times since January 1953.

REMARKS.--Water-discharge records good except those below 5.0 cfs, which are fair. Subsequent to October 1953, flow at this station can be completely regulated by Jemez Canyon Reservoir (station 08328500). However, reservoir is designed essentially for desilting and flood control rather than storage. Diversions for irrigation of about 3,000 acres above station.

AVERAGE DISCHARGE.--42 years (water years 1937, 1944-84), 58.0 ft^3/s, 42,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft^3/s Aug. 29, 1943, gage height, 5.62 ft, site and datum then in use, from rating curve extended above 3,000 ft^3/s; no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft^3/s, but highest observed outside period of record.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 473 ft^3/s Apr. 24; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.42	20	112	.00	28	26	230	409	89	21	.23	.15
2	.35	20	40	.00	28	26	160	293	89	8.8	.30	.15
3	65	20	27	21	28	26	82	220	89	.24	.30	.15
4	114	20	25	50	28	26	82	287	137	.15	.30	.18
5	109	20	43	60	28	27	82	285	173	.15	.30	.00
6	90	20	68	60	28	27	82	284	112	.15	.30	.00
7	44	20	46	60	28	27	81	283	115	.15	.30	.00
8	21	20	13	60	28	27	80	302	114	.15	.14	.00
9	20	20	1.6	52	28	33	190	342	87	.15	146	.00
10	20	20	1.4	39	28	44	312	340	87	.15	108	.00
11	40	20	1.3	39	28	44	301	339	54	.15	.32	.00
12	41	21	1.2	39	28	44	295	340	27	.15	.21	.00
13	20	21	1.1	41	27	44	325	342	27	.15	.05	.00
14	20	21	.98	41	27	43	373	345	27	.15	.00	.00
15	20	21	.90	39	27	43	373	347	11	.15	25	.00
16	20	21	.90	35	27	43	369	349	.30	.15	160	.00
17	20	21	.90	28	27	43	369	351	.15	.22	165	.00
18	20	29	.80	26	27	42	366	351	.15	.15	.32	.00
19	20	38	.75	24	27	57	369	349	39	216	.30	.00
20	20	37	.82	24	27	71	369	347	56	253	.20	.00
21	20	37	.80	24	27	120	363	344	18	26	.09	.00
22	20	37	.55	24	27	191	363	340	.50	26	33	.00
23	20	110	.38	24	27	188	359	336	.45	13	55	.00
24	20	152	.21	24	27	186	473	333	.45	.54	103	.00
25	20	133	.13	24	27	183	427	254	.45	.14	178	.00
26	20	109	.00	24	27	182	193	171	25	.14	175	.00
27	20	105	.00	64	24	180	191	171	43	.14	104	.13
28	20	104	.00	123	26	143	191	171	31	.14	.33	.15
29	20	132	.00	122	26	82	190	171	21	.14	.24	.15
30	20	152	.00	77	---	137	275	138	21	.14	.15	.15
31	20	---	.00	28	---	233	---	89	---	.14	.15	---
TOTAL	944.77	1521	388.72	1296 00	790	2588	7915	9023	1494.45	567.88	1256.53	1.21
MEAN	30.5	50.7	12.5	41.8	27.2	83.5	254	291	49.8	18.3	40.5	.040
MAX	114	152	112	123	28	233	473	409	173	253	178	.18
MIN	.35	20	.00	.00	24	26	80	89	.15	.14	.00	.00
AC-FT	1870	3020	771	2570	1570	5130	15700	17900	2960	1130	2490	2.4

CAL YR 1983 TOTAL 51484.88 MEAN 141 MAX 1380 MIN .00 AC-FT 102100
WTR YR 1984 TOTAL 27786.56 MEAN 75.9 MAX 473 MIN .00 AC-FT 55110

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV											
07...	1400	21	1280	1220	8.6	8.3	18.0	15.0	8.6	210	19
MAR											
06...	1445	26	1050	1160	8.7	8.3	11.0	6.0	--	170	0
MAY											
07...	1300	285	325	355	8.0	8.0	19.0	16.0	--	100	0

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV										
07...	67	9.6	190	6	11	230	170	1.1	25	820
MAR										
06...	55	8.4	170	6	10	130	170	1.2	33	700
MAY										
07...	34	3.9	32	1	4.4	26	26	.40	24	220

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV			
07...	1400	930	5
MAR			
06...	1445	970	5
MAY			
07...	1300	180	22

08329700 CAMPUS WASH AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'40", long 106°37'22", in SE¼ sec.16, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 100 ft west of southwest corner of University of New Mexico North Golf Course, 200 ft downstream from Barelas Stormwater Pumping Station cutfall, 600 ft downstream from Tucker Road bridge, and 1,500 ft northeast of intersection of Lomas and University Blvds. in Albuquerque.

PERIOD OF RECORD.--April 1982 to current (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 5,140 ft, from topographic map.

REMARKS.--Records good. Recording rain gage at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 686 ft^3/s July 31, 1982, gage height, 3.20 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 507 ft^3/s at 2300 hours Aug. 7, gage height, 2.70 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	.00	.00			---	.00	.00	.00	.00	.00	.00
2	4.9	.00	---			---	.00	.00	.00	.00	11	.00
3	.00	.00	---			---	.00	.00	.00	6.5	.00	.00
4	.00	.00	---			---	.00	.00	.00	.00	.00	.00
5	.00	.00	---			---	.00	.00	.00	.00	.00	.00
6	.00	.00	---			---	.00	.00	.00	8.3	27	.00
7	.00	.00	---			---	.00	.00	.00	.00	36	.00
8	2.5	.00	---			.00	.00	.00	.00	.00	16	.00
9	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
10	.00	.00	---			.00	.00	.00	.00	1.1	.00	.00
11	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
12	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
13	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---			.00	.00	.00	.00	.00	.00	3.4
15	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
16	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
17	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
18	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
19	.00	.00	---			.00	.00	5.0	.00	.00	.00	.00
20	6.1	.00	---			.00	.00	8.0	8.8	.00	.00	.00
21	.00	1.3	---			.00	.00	.00	.00	.00	.00	.00
22	.00	.00	---			.00	.00	.00	.00	.00	6.3	.00
23	.00	.00	---			.00	.00	.00	.00	.00	20	.00
24	.00	.00	---			.00	.00	.00	1.5	.00	.00	.00
25	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
26	.00	.00	---			4.4	2.7	.00	.00	.00	.00	18
27	.00	.00	---			4.6	.00	.00	.00	.00	.00	.00
28	.00	1.6	---			.00	.00	.00	.00	.00	.00	.00
29	.00	.00	---			.00	1.7	.00	.00	.00	.00	.00
30	.00	.00	---			.00	.00	.00	.00	.00	8.3	.00
31	.00	---	---			.00	---	.00	---	.00	.00	---
TOTAL	25.50	2.90	---			---	4.40	13.00	10.30	15.90	124.60	21.40
MEAN	.82	.097	---			---	.15	.42	.34	.51	4.02	.71
MAX	12	1.6	---			---	2.7	8.0	8.8	8.3	36	18
MIN	.00	.00	---			---	.00	.00	.00	.00	.00	.00
AC-FT	51	5.8	---			---	8.7	26	20	32	247	42

08329835 NORTH FLOODWAY CHANNEL AT ALBUQUERQUE, NM

LOCATION.--Lat 35°07'03", long 106°36'42", in SE¼ sec.3, T.10 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank of concrete lined drainage channel, 300 ft downstream (north) of bridge on Candelaria Blvd. NE and 3,000 ft downstream from confluence of Campus Wash and Embudo Arroyo in Albuquerque.

PERIOD OF RECORD.--May 1982 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 5,110 ft from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,230 ft^3/s July 31, 1982, gage height, 11.20 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,900 ft^3/s at 1700 hours Aug. 22, gage height, 9.90 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	.00	.00			---	.00	.00	4.6	.00	.00	.00
2	51	.00	---			---	.00	.00	5.3	.00	46	.00
3	.00	.00	---			---	.00	.00	.00	38	9.4	.00
4	.00	16	---			---	.00	.00	.00	.00	.00	.00
5	18	.00	---			---	.00	.00	5.8	.00	.00	.00
6	.00	.00	---			---	.00	.00	.00	19	55	.00
7	.00	.00	---			---	.00	.00	.00	.00	167	.00
8	16	.00	---			.00	.00	.00	.00	.00	65	.00
9	7.2	.00	---			.00	.00	.00	.00	.00	.00	.00
10	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
11	.00	.00	---			.00	.00	.00	.00	48	.00	.00
12	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
13	.00	.00	---			4.5	.00	.00	.00	7.0	.00	.00
14	.00	.00	---			.00	.00	.00	.00	.00	.00	28
15	.00	.00	---			.00	.00	.00	5.1	.00	48	.00
16	.00	.00	---			.00	.00	.00	.00	15	.00	.00
17	.00	.00	---			.00	.00	.00	.00	7.1	.00	.00
18	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
19	.00	7.8	---			.00	.00	.00	69	5.1	1.9	.00
20	52	.00	---			.00	3.9	.00	11	.00	4.1	.00
21	.00	19	---			.00	.00	.00	.00	9.3	.00	.00
22	.00	.00	---			9.5	.00	.00	.00	.00	227	.00
23	.00	.00	---			.00	.00	32	.00	.00	79	.00
24	.00	.00	---			.00	.00	2.7	31	.00	6.3	.00
25	.00	.00	---			.00	.00	.00	.00	.00	3.7	13
26	.00	.00	---			31	32	.00	2.5	.00	6.8	103
27	.00	.00	---			58	.00	.00	.00	13	.00	2.5
28	.00	17	---			.00	.00	.00	.00	.00	.00	.00
29	.00	.00	---			.00	25	.00	.00	.00	.00	.00
30	.00	.00	---			.00	.00	.00	.00	.00	23	.00
31	.00	---	---			.00	---	.00	---	.00	.00	---
TOTAL	215.20	59.80	---			---	60.90	34.70	134.30	161.50	742.20	146.50
MEAN	6.94	1.99	---			---	2.03	1.12	4.48	5.21	23.9	4.88
MAX	71	19	---			---	32	32	69	48	227	103
MIN	.00	.00	---			---	.00	.00	.00	.00	.00	.00
AC-FT	427	119	---			---	121	69	266	320	1470	291

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM

LOCATION.--Lat 35°11'58", long 106°35'53", Bernalillo County, Hydrologic Unit 13020203, in Elena Gallegos Grant, on left bank 0.5 mi upstream from Edith Blvd., 1.1 mi upstream from mouth, and 1.2 mi northeast of Alameda.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1968 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 5,015 ft, from Corps of Engineers plan and profile map.

REMARKS.--Water-discharge records good except those below 25 ft^3/s, which are fair. Floodway channel intercepts flow of numerous arroyos in northeast Albuquerque and discharges into the Rio Grande at a point 1.6 mi north of Alameda.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft^3/s Aug. 14, 1980, gage height, 10.4 ft from rating curve extended above 2,900 ft^3/s; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,800 ft^3/s at 1730 hours Aug. 22, gage height, 7.60 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	.00	.00			---	.00	.00	41	.00	.00	.00
2	74	.00	.00			---	.00	.00	13	.00	50	.00
3	.00	.00	---			---	.00	.00	.00	55	12	.00
4	.00	25	---			---	.00	.00	.00	.00	20	.00
5	19	14	---			---	.00	.00	19	.00	.00	.00
6	12	.00	---			---	.00	.00	.00	22	51	.00
7	.00	.00	---			---	.00	.00	.00	.00	250	.00
8	26	.00	---			.00	.00	.00	.00	.00	165	.00
9	23	.00	---			.00	.00	.00	.00	.00	.00	.00
10	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
11	.00	.00	---			.00	.00	.00	.00	70	.00	.00
12	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
13	.00	.00	---			5.0	.00	.00	.00	10	.00	.00
14	.00	.00	---			.00	.00	.00	.00	.00	.00	62
15	.00	.00	---			.00	.00	.00	14	.00	70	14
16	.00	.00	---			.00	.00	.00	.00	20	.00	.00
17	.00	.00	---			.00	.00	.00	.00	11	.00	.00
18	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
19	.00	17	---			.00	.00	.00	203	10	.00	.00
20	119	.00	---			.00	5.0	.00	40	.00	12	.00
21	.00	35	---			.00	.00	.00	.00	18	.00	.00
22	.00	.00	---			12	.00	.00	.00	.00	329	.00
23	.00	.00	---			.00	.00	73	.00	.00	132	.00
24	.00	.00	---			.00	.00	8.0	57	.00	24	.00
25	.00	.00	---			.00	.00	.00	18	.00	.00	20
26	.00	.00	---			49	60	.00	5.0	.00	21	130
27	.00	.00	---			172	.00	.00	.00	20	.00	10
28	.00	37	---			.00	.00	.00	.00	.00	.00	.00
29	.00	.00	---			.00	38	.00	.00	.00	.00	.00
30	.00	.00	---			.00	.00	.00	.00	.00	33	.00
31	.00	---	---			.00	---	.00	---	.00	.00	---
TOTAL	402.00	128.00	---			---	103.00	81.00	410.00	236.00	1169.00	236.00
MEAN	13.0	4.27	---			---	3.43	2.61	13.7	7.61	37.7	7.87
MAX	129	37	---			---	60	73	203	70	329	130
MIN	.00	.00	---			---	.00	.00	.00	.00	.00	.00
AC-FT	797	254	---			---	204	161	813	468	2320	468

08330000 RIO GRANDE AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, on downstream side of Central Ave. bridge in Albuquerque, and at mile 1,540.0.

DRAINAGE AREA.--17,440 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1946(M).

GAGE.--Water-stage recorder. Datum of gages is 4,946.16 ft National Geodetic Vertical Datum of prior to Sept. 18, 1947, at various sites at datum about 2.00 ft higher; Sept. 18, 1947, to Apr. 12, 1959, at site 550 ft to the left of present site; Apr. 13, 1959, to June 29, 1960, at site 150 ft to right of present site. Supplemental water-stage recorders at sites 75 ft and 150 ft to right of present site used at various times since 1964.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 50 mi upstream. Possible regulation by operation of reservoirs on Rio Chama and by flood-and-silt-detention reservoirs on Galisteo Creek and Jemez River (stations 08285000, 08286900, 08317900, 08328500). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions above station for irrigation of about 718,000 acres, several hundred of which are below station. National Weather Service gage height telemeter at station.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals furnished by Middle Rio Grande Conservancy District.

AVERAGE DISCHARGE.--32 years (water years 1942-73), 1,068 ft^3/s, 773,800 acre-ft/yr prior to closure of Cochiti Dam.

11 years (water years 1974-84), 1,266 ft^3/s, 917,200 acre-ft/yr since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s Apr. 24, 1942, from rating curve extended above 13,900 ft^3/s; maximum gage height, 7.82 ft Aug. 10, 1967; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,500 ft^3/s at 0315 hours May 28, gage height, 7.17 ft; minimum daily, 31 ft^3/s July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	245	271	842	683	721	886	1550	3240	6660	2900	40	767
2	547	404	876	672	724	846	1470	3020	6410	2690	66	697
3	422	404	995	658	740	827	1360	3020	6440	2560	379	550
4	387	408	990	842	757	846	1500	3030	7000	2360	540	496
5	498	475	1040	962	761	841	1610	2910	7740	1200	779	449
6	515	542	1110	945	714	805	1600	3080	7210	830	834	417
7	433	603	1090	896	683	776	1610	3660	7100	736	982	344
8	365	667	1020	934	672	768	1630	4540	5430	689	1680	244
9	377	648	960	939	676	784	1730	4610	49[illegible]0	562	988	198
10	327	538	935	918	706	812	1880	4810	48[illegible]0	400	776	249
11	268	592	870	891	707	825	1920	5030	5130	311	473	373
12	260	667	1090	657	700	799	2370	5370	5050	322	366	392
13	253	660	1040	388	712	811	2400	5790	3880	297	383	365
14	233	646	1170	583	720	900	2020	5950	3600	411	475	370
15	226	632	1090	1190	738	1180	1970	6180	3450	372	459	292
16	221	633	1080	1200	740	1360	2550	6240	3190	367	504	396
17	173	643	1050	1230	765	1440	2410	6580	3160	334	676	421
18	119	634	1010	1020	845	1490	3080	6600	3390	352	381	370
19	101	611	993	890	800	1530	3520	6640	3390	409	267	300
20	116	649	756	807	750	1620	3820	6690	4850	751	255	195
21	163	696	371	688	764	1650	3950	6890	3630	495	230	142
22	156	700	575	696	800	1720	4290	7020	3270	271	455	121
23	175	672	1020	695	800	1700	4490	7690	2910	208	910	168
24	196	796	1040	742	787	1650	4520	7830	2850	142	1100	143
25	293	859	1050	836	779	1600	4040	8060	2980	122	840	82
26	254	761	1080	822	809	1390	3580	8210	3230	94	798	133
27	176	671	1090	755	904	1660	3970	8500	3000	80	962	262
28	142	725	912	811	985	1820	4100	8260	2810	66	1060	380
29	110	756	837	841	933	1850	3440	7270	2760	47	947	340
30	71	774	878	840	---	1890	3090	6720	2790	35	825	207
31	109	---	805	773	---	1680	---	6800	---	31	745	---
TOTAL	7931	18737	29665	25804	22192	38756	81470	180240	133100	20444	20175	9963
MEAN	256	625	957	832	765	1250	2716	5814	4437	659	651	332
MAX	547	859	1170	1230	985	1890	4520	8500	7740	2900	1680	767
MIN	71	271	371	388	672	768	1360	2910	2760	31	40	82
AC-FT	15730	37160	58840	51180	44020	76870	161600	357500	264000	40550	40020	19760
(†)	13840	1380	1130	861	887	6920	13320	16860	15880	15160	15110	13880

CAL YR 1983 TOTAL 674272 MEAN 1847 MAX 7330 MIN 12 AC-FT 1337000 (†) 121000
WTR YR 1984 TOTAL 588477 MEAN 1608 MAX 8500 MIN 31 AC-FT 1167000 (†) 115200

(†) COMBINED FLOW, IN ACRE-FT, OF ALBUQUERQUE RIVERSIDE DRAIN, AND ARENAL, ARMIJO AND ATRISCO CANALS. THIS FLOW WHICH BY-PASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET THE ENTIRE FLOW IN VALLEY CROSS-SECTION.

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to current year.
WATER TEMPERATURES: October 1969 to current year.
SUSPENDED-SEDIMENT DISCHARGES: May 1969 to September 1969 (partial-record station), October 1969 to current year.

REMARKS.--Additional sediment total discharge determinations were made biweekly when needed.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,840 microsiemens Oct. 12, 1974; minimum daily, 115 microsiemens Aug. 14, 1980.
WATER TEMPERATURES: Maximum daily, 34.0°C July 12, 1970; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 45,500 mg/L July 21, 1971; minimum daily, no flow on many days in 1971, 1972, and 1977.
SEDIMENT LOADS: Maximum daily, 275,000 tons July 27, 1971; minimum daily, 0 tons on many days in 1971, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,090 microsiemens July 20; minimum daily, 237 microsiemens May 22, 28, 29.
WATER TEMPERATURES: Maximum daily, 26.0°C Sept. 11; minimum daily, 2.5°C Jan. 3.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 6,150 mg/L July 20; minimum daily mean, 11 mg/L Jan. 12.
SEDIMENT LOADS: Maximum daily, 60,300 tons May 21; minimum daily, 1.8 tons July 31.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
NOV 01...	1400	274	450	454	8.2	8.2	21.0	17.5	7.8	23
MAR 13...	1330	824	370	398	7.8	8.3	19.0	13.0	--	--
MAY 08...	1100	4440	275	284	8.1	7.9	14.0	12.0	--	--
JUL 10...	0945	396	300	309	8.0	8.2	26.0	23.5	--	37

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 01...	160	38	51	8.4	32	1	3.9	81	15	.40
MAR 13...	130	3	41	7.1	27	1	3.2	51	14	.50
MAY 08...	110	22	35	5.8	15	.6	2.2	45	5.5	.30
JUL 10...	120	26	37	6.3	17	.7	2.8	53	4.8	.30

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 01...	20	290	.20	<.10	.060	4.9	5.2	.140	.030	3.0
MAR 13...	21	240	--	--	--	--	--	--	--	--
MAY 08...	17	180	--	--	--	--	--	--	--	--
JUL 10...	17	190	<.10	<.10	.010	.69	--	.090	.020	4.0

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV 01...	1400	5	4	90	1	<1	<10	<10	34	1
MAR 13...	1330	--	--	80	--	--	--	--	--	--
MAY 08...	1100	--	--	30	--	--	--	--	--	--
JUL 10...	0945	--	--	40	--	--	--	--	--	--

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 01...	4	5	<1	<.1	<.1	<1	<1	50	4
MAR 13...	7	--	--	--	--	--	--	--	--
MAY 08...	27	--	--	--	--	--	--	--	--
JUL 10...	8	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV 01...	1400	<7.6	6.7	6.0	4.4	5.2	3.8	.07	3.5

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
MAR 13...	1330	--	--	--	--	--	--	--	--	--
JUL 10...	0945	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAR 13...	--	--	--	--	--	--	--	--	--
JUL 10...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (390	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 13...	--	--	--	<.01	<.01	<.01	--	--	--
JUL 10...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY			
21...	0850	120	K400

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT									
11...	1430	256	18.0	231	160	55	61	89	--
NOV									
01...	1400	274	17.5	217	161	--	--	--	--
JAN									
03...	1045	634	2.5	122	209	--	--	--	--
FEB									
23...	1215	803	7.0	43	93	--	--	--	--
MAR									
13...	1330	824	13.0	90	200	--	--	--	--
APR									
03...	1330	1350	3.0	107	390	--	--	--	--
24...	1130	4270	16.0	832	9590	--	--	--	31
MAY									
08...	1100	4440	12.0	905	10800	--	--	--	25
JUN									
22...	0900	3110	16.0	922	7740	--	--	--	71
JUL									
09...	1000	635	16.0	415	712	--	--	--	--
10...	0945	396	23.5	144	154	--	--	--	--
15...	1000	451	17.0	611	744	--	--	--	--
30...	1115	33	25.0	27	2.4	--	--	--	--
AUG									
07...	1000	814	15.0	1530	3360	--	--	--	--
07...	1415	980	18.5	1950	5160	15	18	29	34
15...	0900	224	14.0	5220	3160	--	--	--	--
23...	0800	728	12.0	3720	7310	52	63	94	--
27...	0900	521	12.0	5750	8090	--	--	--	--
SEP									
11...	1400	224	26.0	258	156	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT									
11...	--	--	--	--	95	97	99	100	--
NOV									
01...	--	--	--	--	72	74	84	98	100
JAN									
03...	--	--	--	--	21	27	60	97	100
FEB									
23...	--	--	--	--	67	82	100	--	--
MAR									
13...	--	--	--	--	66	75	93	100	--
APR									
03...	--	--	--	--	51	58	79	100	--
24...	53	86	100	--	--	--	--	--	--
MAY									
08...	39	77	98	100	--	--	--	--	--
JUN									
22...	75	89	100	--	--	--	--	--	--
JUL									
09...	--	--	--	--	98	98	99	100	--
10...	--	--	--	--	80	81	87	98	100
15...	--	--	--	--	68	--	--	--	--
30...	--	--	--	--	93	95	95	95	100
AUG									
07...	--	--	--	--	98	--	--	--	--
07...	35	56	96	100	--	--	--	--	--
15...	--	--	--	--	100	--	--	--	--
23...	--	--	--	--	99	100	--	--	--
27...	--	--	--	--	100	--	--	--	--
SEP									
11...	--	--	--	--	90	97	99	100	--

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)
OCT								
11...	1430	256	231	160	0	0	11	66
NOV								
01...	1400	274	217	161	0	0	11	81
JAN								
03...	1045	634	122	209	0	0	9	74
FEB								
23...	1215	803	43	93	0	0	17	90
MAR								
13...	1330	824	90	200	2	3	26	79
APR								
03...	1330	1350	107	390	17	21	31	60
24...	1130	4270	832	9590	0	1	55	99
MAY								
08...	1100	4440	905	10800	1	1	41	93
JUL								
10...	0945	396	144	154	0	2	19	55
30...	1115	33	27	2.4	0	1	21	67
AUG								
07...	1415	980	1950	5160	3	4	9	55
SEP								
11...	1400	224	258	156	0	1	46	96

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT								
11...	--	--	80	88	92	96	98	100
NOV								
01...	--	--	90	93	97	99	99	100
JAN								
03...	--	--	88	94	96	99	100	--
FEB								
23...	--	--	99	100	--	--	-	--
MAR								
13...	--	--	93	98	99	100	--	--
APR								
03...	--	--	68	72	75	80	91	100
24...	100	--	--	--	--	--	--	--
MAY								
08...	--	--	98	99	99	99	100	--
JUL								
10...	--	--	79	92	97	100	--	--
30...	--	--	84	93	94	97	100	--
AUG								
07...	--	--	91	96	99	99	100	--
SEP								
11...	98	100	--	--	--	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
OCT									
11...	1430	256	18.0	231	160	198	193	.85	1.60
NOV									
01...	1400	274	17.5	217	161	241	54.0	2.1	2.40
JAN									
03...	1045	634	2.5	122	209	466	300	1.2	1.80
FEB									
23...	1215	803	7.0	43	93	288	260	1.5	2.10
MAR									
13...	1330	824	13.0	90	200	436	335	1.3	2.00
APR									
03...	1330	1350	3.0	107	390	1180	290	1.7	2.70
24...	1130	4270	16.0	832	9590	13800	360	3.2	3.60
MAY									
08...	1100	4440	12.0	905	10800	15300	340	3.2	4.00
JUL									
10...	0945	396	23.5	144	154	173	145	1.6	1.70

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C); WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	500	485	416	450	405	380	306	251	295	---	398
2	404	505	479	414	448	404	381	303	246	297	---	402
3	406	511	438	391	444	409	385	298	249	294	---	404
4	413	490	435	426	439	408	371	296	---	293	---	401
5	405	---	437	449	437	403	376	298	248	315	---	402
6	426	494	442	451	439	404	397	296	251	325	402	399
7	437	490	450	463	444	403	407	298	255	329	382	405
8	434	499	439	457	444	409	404	287	253	321	331	438
9	437	500	434	455	444	407	425	288	260	327	451	444
10	444	498	425	455	438	405	424	284	261	332	734	406
11	450	501	424	449	439	410	423	282	273	338	636	404
12	439	500	421	484	438	349	412	276	273	289	478	402
13	450	501	423	491	438	372	400	290	286	333	438	406
14	447	499	414	---	435	372	390	271	285	338	464	404
15	451	499	418	434	436	373	383	26[illegible]	288	365	455	288
16	448	500	412	421	435	354	373	260	290	349	433	381
17	452	502	411	---	433	356	367	251	293	352	496	384
18	446	502	409	420	427	341	355	249	---	351	949	386
19	455	506	409	350	432	342	347	241	303	397	501	403
20	439	509	410	436	431	341	340	240	301	1090	460	406
21	442	508	437	451	434	345	338	239	294	---	445	---
22	455	504	454	453	427	357	339	237	299	---	414	414
23	463	413	415	451	394	367	288	239	290	---	375	418
24	460	---	412	---	411	350	306	241	285	---	346	432
25	468	---	408	440	415	356	---	244	283	---	735	438
26	467	---	407	432	413	355	309	241	279	---	794	411
27	471	---	398	439	411	350	311	238	282	---	735	440
28	468	---	395	437	397	345	300	237	296	---	583	416
29	458	483	380	478	400	356	308	237	294	---	425	417
30	494	492	400	456	---	352	306	245	294	475	412	438
31	500	---	414	470	---	365	---	245	---	---	389	---
MEAN	448	496	424	442	430	373	364	265	277	372	510	406

WTR YR 1984 MEAN 398 MAX 1090 MIN 237

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	11.0	9.0	7.0	8.0	6.0	9.0	13.0	14.0	---	13.0
2	14.0	13.0	11.0	10.0	8.0	8.0	6.0	10.0	13.0	15.0	---	14.0
3	13.0	13.0	11.0	2.5	7.0	7.0	7.0	9.0	14.0	16.0	---	13.0
4	13.0	13.0	10.0	7.0	7.0	8.0	6.0	10.0	---	15.0	---	13.0
5	13.0	---	11.0	6.0	7.0	6.0	8.0	10.0	14.0	17.0	---	13.0
6	13.0	13.0	10.0	8.0	10.0	5.0	7.0	9.0	15.0	16.0	14.0	12.0
7	13.0	13.0	11.0	8.0	7.0	6.0	8.0	9.0	14.0	16.0	15.0	12.0
8	14.0	12.0	11.0	7.0	7.0	6.0	7.0	10.0	13.0	17.0	16.0	13.0
9	14.0	11.0	10.0	8.0	6.0	7.0	8.0	10.0	15.0	16.0	15.0	13.0
10	13.0	12.0	11.0	7.0	7.0	6.0	8.0	10.0	13.0	17.0	14.0	12.0
11	13.0	12.0	13.0	6.0	8.0	8.0	9.0	11.0	14.0	16.0	15.0	26.0
12	13.0	11.0	12.0	5.0	7.0	7.0	9.0	11.0	13.0	15.0	13.0	12.0
13	13.0	11.0	11.0	5.0	6.0	8.0	9.0	10.0	13.0	16.0	14.0	11.0
14	13.0	12.0	12.0	---	6.0	8.0	10.0	10.0	14.0	16.0	15.0	11.0
15	13.0	12.0	11.0	4.0	7.0	9.0	8.0	11.0	15.0	17.0	14.0	14.0
16	13.0	11.0	12.0	5.0	6.0	8.0	10.0	10.0	14.0	17.0	14.0	13.0
17	13.0	12.0	11.0	---	6.0	7.0	10.0	10.0	13.0	15.0	15.0	13.0
18	13.0	11.0	12.0	4.0	6.0	6.0	10.0	11.0	---	16.0	13.0	12.0
19	13.0	11.0	11.0	4.0	7.0	8.0	9.0	11.0	15.0	15.0	14.0	12.0
20	13.0	11.0	12.0	3.0	7.0	8.0	10.0	11.0	15.0	15.0	12.0	11.0
21	13.0	11.0	11.0	4.0	6.0	8.0	8.0	10.0	16.0	---	13.0	---
22	13.0	11.0	11.0	5.0	6.0	8.0	9.0	11.0	16.0	---	14.0	11.0
23	13.0	11.0	11.0	4.0	7.0	7.0	9.0	11.0	17.0	---	12.0	11.0
24	13.0	---	11.0	---	7.0	9.0	9.0	10.0	17.0	---	13.0	10.0
25	13.0	---	10.0	5.0	8.0	7.0	---	11.0	16.0	---	14.0	10.0
26	13.0	---	10.0	5.0	8.0	7.0	8.0	11.0	16.0	---	13.0	11.0
27	13.0	---	11.0	5.0	9.0	8.0	7.0	11.0	17.0	---	12.0	11.0
28	13.0	---	7.0	6.0	8.0	8.0	8.0	10.0	16.0	---	13.0	10.0
29	13.0	11.0	5.0	7.0	9.0	7.0	9.0	11.0	15.0	---	14.0	11.0
30	14.0	11.0	6.0	6.0	---	8.0	10.0	11.0	16.0	25.0	13.0	10.0
31	13.0	---	9.0	7.0	---	7.0	---	11.0	---	---	12.0	---
MEAN	13.0	12.0	10.5	6.0	7.0	7.5	8.5	10.5	14.5	16.5	13.5	12.5

WTR YR 1984 MEAN 11.0 MAX 26.0 MIN 2.5

BEST [illegible] ABLE

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	196	130	118	86	103	234	68	125	25	49	16	38
2	244	360	49	53	112	265	32	58	19	37	17	39
3	208	237	39	43	186	500	80	142	25	50	17	38
4	277	289	38	42	130	347	105	239	16	33	16	37
5	86	116	48	62	127	357	56	145	20	41	19	43
6	57	79	59	86	163	489	50	128	15	29	22	48
7	50	58	62	101	120	353	30	73	15	28	30	63
8	49	48	77	139	91	251	31	78	23	42	20	41
9	242	246	70	122	58	150	30	76	21	38	25	53
10	696	614	30	44	65	164	27	67	21	40	23	50
11	163	118	40	64	163	383	24	58	22	42	32	71
12	60	42	48	86	145	427	11	20	17	32	37	80
13	56	38	50	89	153	430	14	15	21	40	104	228
14	59	37	34	59	148	468	22	35	25	49	79	192
15	74	45	33	56	80	235	109	350	31	62	133	424
16	57	34	39	67	69	201	505	1640	25	50	147	540
17	56	26	40	69	62	176	658	2190	24	50	146	568
18	50	16	43	74	62	169	466	1280	30	68	122	491
19	49	13	36	59	56	150	260	625	21	45	123	508
20	64	20	43	75	42	86	51	111	19	38	133	582
21	53	23	64	120	24	24	21	39	23	47	130	579
22	59	25	58	110	40	62	24	45	29	63	125	580
23	41	19	37	67	75	207	22	41	35	76	136	624
24	45	24	42	90	64	180	29	58	24	51	138	615
25	52	41	44	102	65	184	32	72	26	55	117	505
26	48	33	41	84	74	216	32	71	24	52	84	315
27	47	22	44	80	71	209	25	51	37	90	112	502
28	48	18	57	112	52	128	33	72	28	74	105	516
29	46	14	71	145	80	181	43	98	23	58	161	804
30	48	9.2	71	148	92	218	46	104	---	---	134	684
31	74	22	---	---	47	102	27	56	---	---	124	562
TOTAL	---	2816.2	---	2534	---	7546	---	8162	---	1429	---	10420

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	95	398	605	5290	2190	39400	356	2790	30	3.2	334	692
2	69	274	600	4890	969	16800	266	1930	41	7.3	201	378
3	87	319	598	4880	770	13400	249	1720	512	524	192	285
4	92	373	485	3970	1000	18900	330	2100	1010	1470	134	179
5	111	483	648	5090	1000	20900	145	470	1700	3580	155	188
6	86	372	585	4860	1300	25300	87	195	2170	4890	115	129
7	95	413	571	5640	2450	47000	172	342	1900	5040	128	119
8	89	392	836	10200	866	12700	113	210	4630	20600	45	30
9	184	859	925	11500	1010	13500	359	545	4360	11600	63	34
10	160	812	850	11000	702	9140	135	146	2800	5870	200	134
11	169	876	670	9100	900	12500	112	94	250	319	226	228
12	294	1880	1010	14600	940	12800	666	579	189	186	140	148
13	198	1280	920	14400	318	3330	750	601	611	632	93	92
14	132	720	950	15300	700	6800	446	495	4100	5260	160	160
15	134	713	750	12500	422	3930	557	559	4890	6060	395	418
16	276	1900	1060	17900	914	7870	253	251	1530	2080	148	158
17	175	1140	925	16400	1670	14200	338	305	5490	10000	145	165
18	343	2850	1110	19800	1000	9150	449	427	659	678	273	273
19	399	3790	1220	21900	790	7230	1040	1150	193	139	597	484
20	484	4990	1820	32900	388	5080	6150	12500	201	138	95	50
21	466	4970	3240	60300	862	8450	4280	5720	142	88	97	37
22	1330	15400	1890	35800	833	7350	4480	3280	901	1220	221	72
23	1680	20400	842	17500	495	3890	3990	2240	3390	8330	180	82
24	1220	14900	1370	29000	430	3310	3250	1250	2980	8760	55	21
25	654	7130	873	19000	470	3780	1930	636	2130	4830	38	8.4
26	610	5900	884	19600	1350	11800	997	253	4020	8660	53	19
27	1460	15600	690	15800	556	4500	824	178	5030	13100	87	62
28	1490	16500	750	16700	405	3070	623	111	1080	3090	162	166
29	1200	11100	555	10900	312	2330	323	41	656	1680	116	106
30	550	4590	420	7620	300	2260	35	3.3	361	804	39	22
31	---	---	1170	21500	---	---	22	1.8	325	656	---	---
TOTAL	---	141324	---	495840	---	350670	---	41123.1	---	130294.5	---	4939.4

TOTAL LOAD FOR YEAR: 1197098.2 TONS.

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'04", long 106°39'18", in SW¼SW¼ sec.17, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 875 ft downstream from highway bridge on Broadway Boulevard SE, 1,760 ft upstream from South Diversion Channel, 0.5 mi downstream from highway bridge on Interstate Highway 25, and 3 mi south of Albuquerque.

DRAINAGE AREA.--133 mi^2.

PERIOD OF RECORD.--October 1951 to September 1968, (annual maximum only), August 1974 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,961 ft, from Corps of Engineers plan and profile map.

REMARKS.--Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft^3/s June 24, 1967, (gage height not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 520 ft^3/s at 2315 hours Aug. 7, gage height, 2.10 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	.00	.00			---	.00	.00	.00	.00	.00	.00
2	14	.00	.00			---	.00	.00	.00	.00	.00	.00
3	.00	.00	---			---	.00	.00	.00	.00	.00	.00
4	.00	.00	---			---	.00	.00	.00	.00	.00	.00
5	.00	.00	---			---	.00	.00	.00	.00	.00	.00
6	8.4	.00	---			---	.00	.00	.00	.00	.00	.00
7	.00	.00	---			---	.00	.00	.00	12	17	.00
8	.00	.00	---			---	.00	.00	.00	.00	35	.00
9	.00	.00	---			---	.00	.00	.00	.00	.00	.00
10	.00	.00	---			---	.00	.00	.00	.00	.00	.00
11	.00	.00	---			---	.00	.00	.00	.00	.00	5.8
12	.00	.00	---			---	.00	.00	.00	6.7	.00	20
13	.00	.00	---			---	.00	.00	.00	.00	.00	.00
14	.00	.00	---			---	.00	.00	.00	.00	.00	.00
15	.00	.00	---			---	.00	.00	.00	.00	.00	.00
16	.00	.00	---			---	.00	.00	.00	.00	.00	.00
17	.00	.00	---			---	.00	.00	.00	.00	.00	.00
18	.00	.00	---			---	.00	.00	.00	.00	.00	.00
19	.00	.00	---			---	.00	.00	.00	.00	.00	.00
20	7.7	.00	---			---	.00	.00	.00	.00	.00	.00
21	.00	.00	---			---	.00	.00	.00	.00	.00	.00
22	.00	.00	---			---	.00	.00	.00	.00	8.8	.00
23	.00	.00	---			.00	.00	.00	.00	.00	12	.00
24	.00	.00	---			.00	.00	.00	6.3	.00	5.9	.00
25	.00	.00	---			.00	.00	.00	.00	.00	30	6.2
26	.00	.00	---			5.0	.00	.00	.00	.00	.00	17
27	.00	.00	---			6.0	.00	.00	.00	.00	20	.00
28	.00	.00	---			.00	.00	.00	.00	.00	24	.00
29	.00	.00	---			.00	.00	.00	.00	.00	19	.00
30	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
31	.00	---	---			.00	---	.00	---	.00	.00	---
TOTAL	36.90	.00	---			---	.00	.00	6.30	18.70	171.70	49.00
MEAN	1.19	.000	---			---	.000	.000	.21	.60	5.54	1.63
MAX	14	.00	---			---	.00	.00	6.3	12	35	20
MIN	.00	.00	---			---	.00	.00	.00	.00	.00	.00
AC-FT	73	.00	---			---	.00	.00	12	37	341	97

08330800 TIJERAS ARROYO BELOW SOUTH DIVERSION CHANNEL INLET NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°39'41", in SW¼SE¼ sec.18, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 260 ft upstream from highway bridge on State Highway 47, 500 ft downstream from South Diversion Channel inlet, 1.0 mi downstream from highway bridge on Interstate Highway 25 and 2.5 mi south of Albuquerque.

PERIOD OF RECORD.--July 1974 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,933 ft, from Corps of Engineers plan and profile map.

REMARKS.--Records fair. South Diversion Channel intercepts flow of numerous arroyos in northeast and southeast Albuquerque and discharges into Tijeras Arroyo at a point 0.8 mi upstream from the Rio Grande.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft^3/s Aug. 19, 1976, gage height, (not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 520 ft^3/s at 2315 hours Aug. 7, gage height, 2.10 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	.00	.00			---	.00	.00	.00	.00	.00	.00
2	25	.00	.00			---	.00	.00	.00	.00	.00	.00
3	.00	.00	---			---	.00	.00	.00	.00	.00	.00
4	.00	.00	---			---	.00	.00	.00	.00	.00	.00
5	.00	.00	---			---	.00	.00	.00	.00	.00	.00
6	8.8	.00	---			---	.00	.00	.00	8.1	.00	.00
7	.00	.00	---			---	.00	.00	.00	15	19	.00
8	.00	.00	---			---	.00	.00	.00	.00	34	.00
9	.00	.00	---			---	.00	.00	.00	.00	.00	.00
10	.00	.00	---			---	.00	.00	.00	.00	.00	.00
11	.00	.00	---			---	.00	.00	.00	.00	.00	7.0
12	.00	.00	---			---	.00	.00	.00	7.0	.00	25
13	.00	.00	---			---	.00	.00	.00	.00	.00	.00
14	.00	.00	---			---	.00	.00	.00	.00	.00	.00
15	.00	.00	---			---	.00	.00	.00	.00	.00	.00
16	.00	.00	---			---	.00	.00	.00	.00	.00	.00
17	.00	.00	---			---	.00	.00	.00	.00	.00	.00
18	.00	.00	---			---	.00	.00	.00	.00	.00	.00
19	.00	.00	---			---	.00	.00	.00	.00	.00	.00
20	8.8	.00	---			---	.00	.00	.00	.00	.00	.00
21	.00	.00	---			---	.00	.00	.00	.00	.00	.00
22	.00	.00	---			---	.00	.00	.00	.00	9.5	.00
23	.00	.00	---			.00	.00	.00	.00	.00	12	.00
24	.00	.00	---			.00	.00	.00	6.5	.00	5.3	.00
25	.00	.00	---			.00	.00	.00	9.3	.00	32	8.0
26	.00	.00	---			8.4	.00	.00	.00	.00	.00	20
27	.00	.00	---			7.2	.00	.00	.00	.00	23	.00
28	.00	.00	---			.00	.00	.00	.00	.00	27	.00
29	.00	.00	---			.00	.00	.00	.00	.00	23	.00
30	.00	.00	---			.00	.00	.00	.00	.00	.00	.00
31	.00	---	---			.00	---	.00	---	.00	.00	---
TOTAL	49.40	.00	---			---	.00	.00	15.80	30.10	184.80	60.00
MEAN	1.59	.000	---			---	.000	.000	.53	.97	5.96	2.00
MAX	25	.00	---			---	.00	.00	9.3	15	34	25
MIN	.00	.00	---			---	.00	.00	.00	.00	.00	.00
AC-FT	98	.00	---			---	.00	.00	31	60	367	119

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

WATER-QUALITY RECORDS

LOCATION.--Lat 34°54'21", long 106°41'04", in NE¼NE¼SW¼ sec. 24, T. 08 N., R. 02 E., Valencia County, Hydrologic Unit 13020203, 50 feet upstream from diversion dam, 50 feet downstream from bridge on State Highway 147, at Isleta.

DRAINAGE AREA.--18,100 mi^2 (estimated).

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples are collected on the Peralta main canal or the Belen Highline canal when the river is completely diverted. Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
NOV 03...	1000	530	500	506	8.0	7.2	17.5	14.5	6.1	34	160
JAN 03...	1300	687	435	--	8.0	--	8.0	5.5	9.3	26	--
MAR 13...	1000	824	420	433	7.6	7.8	15.0	11.0	7.0	31	130
MAY 08...	1430	4440	290	303	7.9	7.8	20.5	15.0	8.2	34	110
JUL 13...	1100	382	335	405	7.8	7.6	33.0	27.0	5.0	57	120
SEP 18...	1000	245	445	--	7.7	--	20.0	19.5	5.4	30	--
18...	1010	245	445	--	7.7	--	--	19.5	--	--	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
NOV 03...	3	50	8.3	43	2	5.3	190	160	58	25	.60
JAN 03...	--	--	--	--	--	--	--	--	--	--	--
MAR 13...	0	42	7.3	34	1	3.9	170	140	56	18	.50
MAY 08...	22	35	5.9	17	.7	2.5	110	90	47	7.0	.30
JUL 13...	0	39	6.0	30	1	4.9	170	140	50	17	.50
SEP 18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 03...	25	310	.30	.26	2.50	1.5	4.3	1.20	1.00	8.3
JAN 03...	--	-	.10	.13	1.20	.60	1.9	.860	.530	5.2
MAR 13...	21	270	.20	.15	1.00	.80	2.0	.590	.420	4.1
MAY 08...	18	190	.20	.20	.160	.64	1.0	.370	.030	5.8
JUL 13...	22	260	.70	.73	1.20	1.0	2.9	1.10	1.10	8.2
SEP 18...	--	--	.40	.35	1.10	.80	2.3	1.00	.940	5.9
18...	--	--	.40	.34	1.30	1.0	2.7	1.20	1.00	--

08331000 RIO GRANDE AT ISLETA, NM -- Continued
(Surveillance station)

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV 03...	1000	6	5	160	1	<1	10	<10	14	3
MAR 13...	1000	--	--	100	--	--	--	--	--	--
MAY 08...	1430	--	--	40	--	--	--	--	--	--
JUL 13...	1100	3	4	90	<1	2	10	<10	16	5

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 03...	10	6	<1	<.1	<.1	<1	<1	40	9
MAR 13...	9	--	--	--	--	--	--	--	--
MAY 08...	17	--	--	--	--	--	--	--	--
JUL 13...	18	16	3	<.1	.6	<1	<1	90	15

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
NOV 03...	1000	<2.0	7.3	150	1	<1	3

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
NOV 03...	<10	<1	800	<10	34	<.01	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
NOV 03...	1000	8.6	3.5	7.9	3.8	6.8	3.3	.11	2.8

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLORDANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DIAZINON, TOTAL (UG/L) (39570)	DIELDRIN TOTAL (UG/L) (39380)	ENDOSULFAN, TOTAL (UG/L) (39388)
MAR 13...	1000	--	--	--	--	--	--	--	--	--
SEP 18...	1000	<.1	<.010	<.1	<.010	<.010	<.010	.08	<.010	<.010

08331000 RIO GRANDE AT ISLETA, NM -- Continued
(Surveillance station)

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAR 13...	--	--	--	--	--	--	--	--	--
SEP 18...	<.010	<.01	<.010	<.010	<.010	.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 13...	--	--	--	<.01	<.01	.01	--	--	--
SEP 18...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 03...	1000	1200	5600
JAN 03...	1300	K3	K20
MAR 13...	1000	K13	K35
MAY 08...	1430	42	130
JUL 13...	1100	K0	K16
SEP 18...	1000	550	470

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 03...	1000	530	14.5	174	249	74
JAN 03...	1300	687	5.5	123	228	39
MAR 13...	1000	824	11.0	53	118	96
MAY 08...	1430	4440	15.0	851	10200	26
JUL 13...	1100	382	27.0	553	570	35
SEP 18...	1000	245	19.5	68	45	97

08331990 RIO GRANDE CONVEYANCE CHANNEL NEAR BERNARDO, NM

LOCATION.--Lat 34°24'52", long 106°48'11", Socorro County, Hydrologic Unit 13020203, in Sevilleta or Belen Grant, 0.2 mi south of U.S. Highway 60, 1.8 mi east of Bernardo, about 3 mi upstream from floodway, and 4 mi upstream from Rio Puerco.

PERIOD OF RECORD.--June 1936 to September 1937, October 1964 to current year. July 1943 to September 1964, included in composite flow of "Rio Grande near Bernardo". October 1960 to September 1964, monthly acre-feet published in WSP 1923 (daily records available in district files). Beginning October 1952, flow in conveyance channel represents controlled diversion from Rio Grande. Prior to October 1952, records called "San Francisco Riverside drain near Bernardo", are not equivalent.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 4,720.00 ft National Geodetic Vertical Datum of 1929. Prior to October 1964, 0.2 mi upstream at various datums.

REMARKS.--Records good. Conveyance channel is 1 of 4 channels (stations 08332010, 08332030, and 08332050) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry flows up to about 2,000 ft^3/s. For combined monthly flow in acre-ft of this channel, floodway, Bernardo interior drain and Lower San Juan Riverside drain, see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,220 ft^3/s Apr. 22, 1958; no flow many days most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.9	5.1	5.3	7.1	6.4	11	9.2	12	5.1	1.9	4.6
2	3.5	4.8	5.3	5.3	7.1	5.9	14	8.9	12	5.2	1.9	4.4
3	4.0	4.8	5.3	5.3	7.2	5.9	10	8.3	13	6.6	1.7	4.1
4	4.0	5.2	5.3	5.2	7.8	5.7	9.2	8.2	12	6.8	1.6	3.7
5	4.0	5.0	5.3	5.3	7.8	5.7	9.8	9.1	12	6.0	1.7	3.1
6	3.5	4.9	5.3	5.4	7.8	5.8	9.3	8.9	14	5.0	3.7	2.9
7	3.5	4.9	5.3	5.9	7.8	5.9	11	7.9	11	4.8	1.8	2.6
8	4.0	5.0	4.9	5.9	7.8	6.4	13	12	11	4.5	1.8	3.4
9	4.0	4.8	5.0	5.8	7.8	6.5	11	11	11	4.3	3.5	2.8
10	4.5	5.0	5.0	5.9	7.7	6.5	10	11	11	4.1	4.5	2.6
11	4.0	5.1	5.0	5.9	7.5	6.6	10	10	9.2	4.0	4.1	2.6
12	4.0	5.0	5.2	5.9	7.2	6.5	10	11	8.1	4.7	3.4	2.3
13	4.5	5.1	5.2	5.9	7.2	6.5	10	13	7.7	3.8	3.7	2.1
14	4.5	5.6	5.3	5.6	7.4	6.5	12	12	7.2	3.4	3.5	1.9
15	5.4	5.1	5.4	5.3	7.4	6.5	12	11	6.9	2.9	3.2	1.8
16	7.1	4.9	5.3	5.7	7.4	6.5	11	11	7.1	2.9	3.6	1.7
17	6.0	4.9	5.3	6.3	7.8	6.7	11	11	8.0	5.8	3.3	2.3
18	4.8	4.7	5.3	7.1	7.2	7.4	13	11	6.2	3.0	3.3	2.0
19	4.7	4.5	5.6	7.1	6.5	7.9	11	13	6.3	2.9	3.0	2.3
20	4.8	4.5	5.9	6.8	6.7	8.7	12	16	5.8	2.8	3.5	2.2
21	4.8	4.6	5.9	6.7	6.7	9.4	13	13	5.8	2.6	2.9	2.2
22	5.1	4.6	5.5	6.7	6.7	9.8	13	13	5.5	3.0	3.2	2.8
23	5.0	4.8	5.3	6.5	6.7	10	13	13	5.3	3.0	9.9	2.4
24	4.8	4.7	5.3	6.5	6.8	11	12	13	6.4	2.8	9.0	2.2
25	4.5	4.9	5.8	6.5	6.8	11	11	12	6.3	2.7	6.5	1.8
26	4.5	5.0	5.9	6.6	6.6	11	11	11	5.9	2.5	12	2.3
27	4.8	5.1	6.2	6.9	6.5	11	9.9	11	5.6	2.5	11	2.5
28	4.6	5.1	6.1	6.8	6.3	11	11	12	5.5	2.5	4.8	2.5
29	4.8	4.9	5.8	7.1	6.5	16	12	11	6.5	2.7	5.0	2.7
30	5.6	4.9	5.3	6.9	---	21	11	12	5.5	2.2	5.0	2.8
31	5.5	---	5.3	7.1	---	11	---	12	---	2.2	4.9	---
TOTAL	141.8	147.3	167.7	191.2	207.8	262.7	337.2	346.5	249.8	117.3	132.9	79.6
MEAN	4.57	4.91	5.41	6.17	7.17	8.47	11.2	11.2	8.33	3.78	4.29	2.65
MAX	7.1	5.6	6.2	7.1	7.8	21	14	16	14	6.8	12	4.6
MIN	3.0	4.5	4.9	5.2	6.3	5.7	9.2	7.9	5.3	2.2	1.6	1.7
AC-FT	281	292	333	379	412	521	669	687	495	233	264	158

CAL YR 1983 TOTAL 2120.4 MEAN 5.81 MAX 30 MIN 1.9 AC-FT 4210
WTR YR 1984 TOTAL 2381.8 MEAN 6.51 MAX 21 MIN 1.6 AC-FT 4720

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM

LOCATION.--Lat 34°25'01", long 106°48'00", Socorro County, Hydrologic Unit 13020203, in Belen or Sevilleta Grant, on downstream side of bridge on U.S. Highway 60, 5 mi downstream from heading of conveyance channel, 2 mi east of Bernardo, and at mile 1,487.2.

DRAINAGE AREA.--19,230 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1936 to January 1939, October 1941 to current year. Monthly discharge only October 1942 to June 1943 published in WSP 1312, and October 1960 to September 1964, published in WSP 1923 (daily records available in district files). Published as "Rio Grande near Bernardo" prior to October 1964. Prior to October 1952, flow of Bernardo interior drain was included only when it carried river overflow, the entire flow has been included from October 1952 to September 1964. Flow in the conveyance channel, formerly San Francisco Riverside drain, has been included in record prior to October 1964.

GAGE.--Water-stage recorder. Datum of gage is 4,722.55 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Since November 1973 flow completely regulated by Cochiti Dam (station 08317300) 100 mi upstream. Floodway is 1 of 4 channels (stations 08331990, 08332030, and 08332050) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, Bernardo interior drain and Lower San Juan Riverside drain see tabulation below. Diversions for irrigation of about 740,000 acres above station.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft^3/s, 815,100 acre-ft/yr. Includes flow of floodway, conveyance channel, and Bernardo interior drain.
15 years (water years 1959-73) 898 ft^3/s, 605,600 acre-ft/yr, includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain prior to closure of Cochiti Dam.
11 years (water years 1974-84) 1,242 ft^3/s, 899,800 acre-ft/yr, includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD (1936-39 AND SINCE 1941).--Maximum discharge, 21,000 ft^3/s Apr. 25, 1942, gage height, 6.90 ft; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7,550 ft^3/s June 1; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	200	742	771	755	940	1550	3080	7550	2740	.00	264
2	32	306	827	542	735	730	1420	3000	7420	2670	.00	178
3	102	408	956	501	715	710	1310	2840	7220	2490	.00	277
4	254	482	1200	520	715	700	1200	2860	7140	2300	.00	139
5	222	504	1210	675	725	690	1000	2890	7160	2210	.00	82
6	379	516	1190	870	735	665	1140	3110	7130	1930	.00	55
7	461	573	1300	900	725	620	1140	3270	6980	796	.00	.00
8	436	647	1210	865	705	540	1160	3590	6810	622	90	.00
9	343	726	1030	865	651	520	1250	4320	6000	450	704	.00
10	333	746	861	880	695	480	1440	5050	5280	385	674	.00
11	271	615	874	865	731	425	1600	4660	5020	314	447	.00
12	227	594	823	775	727	425	1720	5010	4450	161	268	.00
13	192	708	1150	665	738	460	2540	5900	4150	108	390	.00
14	182	678	1170	170	729	465	2230	5150	3630	104	420	.00
15	164	656	1560	220	712	500	1610	5400	3450	100	475	.00
16	111	669	1340	820	715	646	1640	6240	3150	136	485	.00
17	128	689	1360	1120	745	1120	2590	6130	3100	228	490	.00
18	130	694	1180	1160	789	1180	2100	6560	3130	275	375	.00
19	107	687	1200	1110	887	1440	3470	6720	3330	214	315	.00
20	86	651	1130	815	884	1390	3600	6800	3630	179	280	.00
21	105	681	855	715	788	1460	3740	6940	3640	246	285	47
22	153	757	385	645	767	1490	4000	6970	3420	437	300	17
23	163	804	384	620	816	1780	4160	6910	3020	258	390	.00
24	158	750	1010	650	790	1730	4280	6820	2890	135	795	.00
25	162	857	1100	680	798	1610	3880	6870	2980	80	860	.00
26	164	958	1250	735	765	1550	3760	6950	3030	53	935	.00
27	167	899	1320	725	808	1260	3640	6950	3070	40	860	.00
28	126	664	1300	745	851	1490	3760	6950	2980	27	955	106
29	89	711	1090	755	1000	1650	3530	7040	2890	.00	1020	108
30	73	753	773	765	---	1690	3140	7240	2820	.00	1000	244
31	55	---	754	765	---	1710	---	7480	---	.00	551	---
TOTAL	5592	19583	32534	22909	22196	32066	73600	169700	136470	19688.00	13364.00	1517.00
MEAN	180	653	1049	739	765	1034	2453	5474	4549	635	431	50.6
MAX	461	958	1560	1160	1000	1780	4280	7480	7550	2740	1020	277
MIN	17	200	384	170	651	425	1000	2840	2820	.00	.00	.00
AC-FT	11090	38840	64530	45440	44030	63600	146000	336600	270700	39050	26510	3010
(†)	28300	44530	70000	50560	48880	75090	159900	350600	282700	51000	39070	16050

CAL YR 1983 TOTAL 597644.20 MEAN 1637 MAX 8290 MIN .00 AC-FT 1185000 (†) MEAN 1843 AC-FT 1334000
WTR YR 1984 TOTAL 549219.00 MEAN 1501 MAX 7550 MIN .00 AC-FT 1089000 (†) MEAN 1676 AC-FT 1217000

(†) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL, BERNARDO INTERIOR DRAIN, AND LOWER SAN JUAN RIVERSIDE DRAIN.

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to current year.
WATER TEMPERATURES: October 1964 to current year.
SUSPENDED-SEDIMENT DISCHARGES: October 1964 to current year.

REMARKS.--Additional sediment total discharge determinations were made biweekly when needed. Records prior to 1965 water year were published as 08332000 Rio Grande near Bernardo, N. Mex., a composite of 08331990 Rio Grande Conveyance Channel near Bernardo, 08332010 Rio Grande Floodway near Bernardo, and 08332050 Bernardo Interior Drain at Bernardo.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1964-84): Maximum daily, 1,410 microsiemens July 23, 1976; minimum daily, 224 microsiemens June 5, 1980.
WATER TEMPERATURES: Maximum daily, 34.5°C Aug. 9, 1975; minimum daily, 0.0°C on several days during 1971-72, 1976-77, 1979, and 1983.
SEDIMENT CONCENTRATIONS (Water years 1975-84): Maximum daily mean, 21,400 mg/L Aug. 11, 1979; minimum daily mean, no flow on many days of most years.
SEDIMENT LOADS: Maximum daily, 356,000 tons Aug. 11, 1967; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 937 microsiemens July 22; minimum daily, 271 microsiemens May 25.
WATER TEMPERATURES: Maximum daily, 34.0°C July 15; minimum daily, 1.0°C Jan. 21.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 7,210 mg/L Aug. 26; minimum daily mean, no flow on many days during July-Sept.
SEDIMENT LOADS: Maximum daily, 34,600 tons June 21; minimum daily, 0 tons many days during July-Sept.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
NOV 03...	1330	411	590	597	8.3	7.9	19.5	17.0	8.7	26
MAR 16...	1015	543	475	482	8.1	7.9	18.0	14.0	--	--
MAY 10...	1100	5120	305	323	8.0	7.9	25.5	16.5	--	--
JUL 13...	1115	115	575	583	8.3	8.3	28.0	26.0	--	48
SEP 21...	1445	33	550	--	8.7	--	25.5	23.5	--	--

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV 03...	190	20	61	10	53	2	5.5	110	27	.60
MAR 16...	150	0	46	7.8	38	1	4.3	68	20	.50
MAY 10...	120	19	36	6.1	19	.8	2.7	51	8.2	.30
JUL 13...	190	28	59	10	49	2	4.7	100	22	.50
SEP 21...	--	--	--	--	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 03...	26	400	.70	.74	.170	.73	1.6	.740	.580	6.4
MAR 16...	22	290	--	--	--	--	--	--	--	--
MAY 10...	18	200	--	--	--	--	--	--	--	--
JUL 13...	26	370	.40	.36	.030	1.1	1.5	.470	.360	4.7
SEP 21...	--	--	--	--	--	--	--	--	--	--

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
NOV 03...	1330	7	5	130	1	<1	<10	<10	12	1
MAR 16...	1015	--	--	100	--	--	--	--	--	--
MAY 10...	1100	--	--	40	--	--	--	--	--	--
JUL 13...	1115	--	--	110	--	--	--	--	--	--

DATE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV 03...	5	7	<1	<.1	<.1	<1	<1	70	3
MAR 16...	6	--	--	--	--	--	--	--	--
MAY 10...	11	--	--	--	--	--	--	--	--
JUL 13...	6	--	--	--	--	--	--	--	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- AZINON, TOTAL (UG/L) (39570)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)
MAR 16...	1015	--	--	--	--	--	--	--	--	--
SEP 21...	1445	<.1	<.010	<.1	<.010	<.010	<.010	.03	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA- CHLOR, TOTAL (UG/L) (39410)	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA- THION, TOTAL (UG/L) (39530)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	METHYL PARA- THION, TOTAL (UG/L) (39600)	METHYL TRI- THION, TOTAL (UG/L) (39790)
MAR 16...	--	--	--	--	--	--	--	--	--
SEP 21...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA- THION, TOTAL (UG/L) (39540)	TOX- APHENE, TOTAL (UG/L) (39400)	TOTAL TRI- THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER- THANE TOTAL (UG/L) (39034)	NAPH- THA- LENES, POLY- CHLOR. OTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 16...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 21...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)
OCT										
11...	1345	261	19.0	191	135	--	--	--	--	--
NOV										
03...	1100	411	14.0	166	184	--	--	--	--	--
DEC										
08...	1200	1210	5.0	584	1910	20	26	41	58	71
JAN										
09...	1100	844	5.0	350	798	--	--	--	33	44
FEB										
17...	1115	757	6.0	82	168	--	--	--	--	--
MAR										
09...	1130	372	9.0	94	94	--	--	--	--	--
16...	1015	543	14.0	161	236	--	--	--	--	--
APR										
12...	1330	1860	14.5	534	2680	--	--	--	48	64
MAY										
10...	1100	5120	16.5	1060	14700	--	--	--	31	48
19...	0900	9740	19.0	661	17400	--	--	--	--	--
JUN										
04...	1730	6860	20.0	1070	19800	--	--	--	--	--
07...	1230	7540	18.5	2370	48200	--	--	--	15	31
18...	0945	3500	21.0	313	2960	--	--	--	--	--
21...	1600	3160	25.0	3320	28300	--	--	--	--	--
JUL										
13...	1115	115	26.0	89	28	--	--	--	--	--
AUG										
10...	1730	580	20.0	5040	7890	60	75	93	--	--
16...	1830	132	24.0	2810	1000	52	74	94	--	--
19...	1500	86	26.0	3080	715	--	--	--	--	--
23...	1800	92	26.0	4660	1160	50	74	94	--	--
24...	1930	528	22.0	6940	9890	--	--	--	--	--
27...	1830	571	27.0	2580	3980	--	--	--	--	--
SEP										
21...	1445	33	23.5	30	2.7	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
OCT									
11...	--	--	--	95	95	97	100	--	--
NOV									
03...	--	--	--	97	99	100	--	--	--
DEC									
08...	98	100	--	--	--	--	--	--	--
JAN									
09...	94	100	--	--	--	--	--	--	--
FEB									
17...	--	--	--	81	93	99	100	--	--
MAR									
09...	--	--	--	49	56	90	98	98	98
16...	--	--	--	46	54	89	100	--	--
APR									
12...	97	100	--	--	--	--	--	--	--
MAY									
10...	88	100	--	--	--	--	--	--	--
19...	--	--	--	94	--	--	--	--	--
JUN									
04...	--	--	--	100	--	--	--	--	--
07...	77	97	100	--	--	--	--	--	--
18...	--	--	--	91	96	100	--	--	--
21...	--	--	--	100	--	--	--	--	--
JUL									
13...	--	--	--	79	84	98	100	--	--
AUG									
10...	--	--	--	99	100	--	--	--	--
16...	--	--	--	99	100	--	--	--	--
19...	--	--	--	100	--	--	--	--	--
23...	--	--	--	99	99	100	--	--	--
24...	--	--	--	100	--	--	--	--	--
27...	--	--	--	99	--	--	--	--	--
SEP									
21...	--	--	--	90	93	97	100	--	--

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)
OCT												
11...	1345	261	191	135	2	9	44	91	99	100	--	--
NOV												
03...	1100	411	166	184	1	26	97	100	--	--	--	--
DEC												
08...	1200	1210	584	1910	1	3	77	97	100	--	--	--
JAN												
09...	1100	844	350	798	1	6	62	97	--	--	100	--
19...	1200	636	--	--	4	26	87	100	--	--	--	--
FEB												
17...	1115	757	82	168	29	78	99	100	--	--	--	--
MAR												
09...	1130	372	94	94	1	1	36	94	--	--	98	100
16...	1015	543	161	236	0	1	49	95	--	--	99	100
APR												
12...	1330	1860	534	2680	0	3	62	94	100	--	--	--
MAY												
10...	1100	5120	1060	14700	0	3	67	97	100	--	--	--
JUN												
07...	1230	7540	2370	48200	1	9	81	99	100	--	--	--
18...	0945	3500	313	2960	12	56	99	100	--	--	--	--
JUL												
13...	1115	115	89	28	2	11	86	99	100	--	--	--
SEP												
21...	1445	33	30	2.7	2	4	77	99	100	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
OCT									
11...	1345	261	19.0	191	135	145	114	1.8	1.30
NOV									
03...	1100	411	14.0	166	184	278	195	1.2	1.70
DEC									
08...	1200	1210	5.0	584	1910	3270	320	1.6	2.30
JAN									
09...	1100	844	6.0	350	798	1380	340	1.4	1.80
FEB									
17...	1115	757	6.0	82	168	394	265	1.4	2.00
MAR									
09...	1130	372	9.0	94	94	226	130	1.4	2.00
16...	1015	543	14.0	161	236	533	245	1.2	1.90
APR									
12...	1330	1860	14.5	534	2680	3940	465	2.0	2.00
MAY									
10...	1100	5120	16.5	1060	14700	27500	500	2.2	4.60
JUN									
07...	1230	7540	18.5	2370	48200	71900	490	2.6	6.00
18...	0945	3500	21.0	313	2960	4890	560	1.6	4.00
JUL									
13...	1115	115	26.0	89	28	56	65.0	.99	1.80

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	701	638	557	511	560	485	479	357	289	349	---	492
2	570	678	592	533	539	495	489	356	284	348	---	516
3	597	657	564	552	535	507	502	349	286	354	---	495
4	494	655	560	551	531	499	515	359	301	355	---	512
5	515	638	535	563	530	481	504	348	288	363	---	563
6	528	632	531	537	525	488	479	355	305	409	---	604
7	560	620	527	535	526	493	483	359	282	482	---	---
8	542	605	554	547	536	470	481	341	295	516	531	---
9	555	596	542	540	537	475	481	326	311	550	456	---
10	541	585	546	532	539	473	476	327	313	537	647	---
11	519	594	529	540	531	478	478	322	321	566	568	---
12	466	605	536	524	522	485	478	320	324	642	689	---
13	508	598	525	537	533	493	474	328	337	649	692	---
14	535	589	527	580	526	493	451	324	341	622	664	---
15	575	590	505	597	518	519	448	305	352	652	617	---
16	575	591	508	506	516	512	456	302	359	598	858	---
17	569	598	501	492	519	468	439	291	355	570	651	---
18	559	596	498	487	509	456	438	286	362	582	628	---
19	558	595	499	495	494	446	370	284	340	569	649	---
20	551	594	500	526	487	431	370	283	343	595	750	---
21	556	598	514	527	---	436	370	275	400	583	750	574
22	551	583	582	552	502	432	368	272	354	937	556	625
23	527	583	621	554	497	435	348	286	341	790	929	---
24	541	583	521	562	498	452	349	277	346	696	476	---
25	546	582	502	562	510	541	353	271	350	662	556	---
26	548	606	495	539	511	493	352	298	342	738	583	---
27	573	604	485	522	511	469	344	291	340	733	712	---
28	518	611	486	502	505	465	346	291	349	766	667	---
29	---	602	486	528	488	430	341	283	352	---	598	---
30	576	596	505	559	---	455	342	287	350	---	508	604
31	627	---	513	555	---	437	---	281	---	---	478	---
MEAN	553	607	527	537	519	475	427	311	330	579	634	554

WTR YR 1984 MEAN 498 MAX 937 MIN 271

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	12.0	6.0	2.0	9.0	13.0	10.0	18.0	25.0	24.0	---	25.0
2	15.0	13.0	7.0	6.0	9.0	12.0	9.0	14.0	19.0	28.0	---	29.0
3	13.0	15.0	7.0	8.0	8.0	13.0	13.0	19.5	19.0	28.0	---	28.0
4	16.0	13.0	6.0	5.0	9.0	10.0	14.0	21.0	20.0	29.0	---	29.0
5	16.0	11.0	5.0	8.0	8.0	6.0	18.0	19.0	21.0	29.0	---	28.0
6	16.0	13.0	4.0	8.0	10.0	7.0	17.0	19.0	25.0	26.0	---	23.0
7	18.0	13.0	6.0	8.0	10.0	10.0	14.0	19.0	27.0	28.0	---	---
8	15.0	12.0	8.0	9.0	8.0	12.0	15.0	18.0	21.0	30.0	18.0	---
9	16.0	10.0	7.0	8.0	8.0	12.0	13.0	20.0	25.0	31.0	21.0	---
10	16.0	8.0	8.0	8.0	7.0	15.0	14.0	22.0	18.0	30.0	20.0	---
11	15.0	7.0	8.0	7.0	5.0	13.0	16.0	25.0	23.0	29.0	15.0	---
12	13.0	12.0	8.0	7.0	2.0	15.0	15.0	21.0	24.0	26.0	23.0	---
13	13.0	9.0	6.0	4.0	7.0	17.0	14.0	25.0	23.0	28.0	23.0	---
14	13.0	10.0	5.0	4.0	7.0	16.0	18.0	25.0	25.0	32.0	23.0	---
15	14.0	5.0	5.0	6.0	10.0	14.0	19.0	23.0	24.0	34.0	22.0	---
16	13.0	8.0	5.0	4.0	7.0	16.0	19.0	23.0	24.0	29.0	24.0	---
17	16.0	6.0	4.0	4.0	6.0	17.0	19.0	23.0	22.0	25.0	25.0	---
18	19.0	9.0	5.0	3.0	9.5	14.0	20.0	24.0	25.0	27.0	22.0	---
19	14.0	8.0	5.0	3.0	6.5	13.0	18.0	19.0	24.0	29.0	26.0	---
20	13.0	7.0	6.0	4.0	4.5	15.0	16.0	25.0	24.0	24.0	25.0	---
21	14.0	7.0	5.0	1.0	---	16.0	15.0	25.0	25.0	26.0	30.0	22.0
22	9.0	5.0	6.0	5.0	11.0	13.0	15.0	29.0	27.0	27.0	20.0	22.0
23	18.0	4.0	8.0	4.0	12.0	13.0	22.0	25.0	26.0	26.0	26.0	---
24	13.0	4.0	3.0	5.0	9.0	14.0	18.0	25.0	24.0	26.0	22.0	---
25	16.0	8.0	2.0	7.0	11.0	11.0	19.0	26.0	24.0	23.0	22.0	---
26	17.0	5.0	3.0	8.0	8.0	8.0	14.0	18.0	26.0	25.0	26.0	---
27	14.0	5.0	8.0	8.0	11.0	9.0	12.0	26.0	27.0	22.0	27.0	---
28	17.0	7.0	4.0	3.0	10.0	13.0	8.0	26.0	30.0	16.0	27.0	---
29	---	7.0	4.0	9.0	12.0	13.0	8.0	25.0	28.0	---	27.0	---
30	15.0	8.0	7.0	9.0	---	11.0	19.0	25.0	29.0	---	28.0	20.0
31	14.0	---	5.0	8.0	---	13.0	---	24.0	---	---	27.0	---
MEAN	15.0	8.5	5.5	6.0	8.5	12.5	15.5	22.5	24.0	27.0	23.5	25.0

WTR YR 1984 MEAN 15.5 MAX 34.0 MIN 1.0

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	67	3.1	142	77	283	567	107	223	102	208	122	310
2	216	19	165	136	350	782	83	121	73	145	183	361
3	502	138	180	198	334	862	87	118	274	529	139	266
4	1130	775	195	254	379	1230	80	112	103	199	104	197
5	810	486	218	297	372	1220	126	230	75	147	174	324
6	1160	1190	197	274	350	1120	154	362	64	127	297	533
7	750	934	225	348	406	1430	125	304	75	147	172	288
8	503	592	280	489	432	1410	118	276	132	251	202	295
9	395	366	335	657	323	898	220	514	135	237	154	216
10	294	264	344	693	220	511	115	273	177	332	161	209
11	219	160	254	422	215	507	125	292	329	649	118	135
12	848	520	198	318	185	411	107	224	201	395	78	90
13	462	240	255	487	298	925	98	176	247	492	91	113
14	240	118	200	366	311	982	66	30	229	451	69	87
15	149	66	197	349	333	1400	53	31	110	211	83	112
16	140	42	194	350	227	821	139	308	103	199	146	255
17	174	60	219	407	212	778	220	665	81	163	229	692
18	139	49	199	373	199	634	197	617	102	217	260	828
19	90	26	198	367	205	664	152	456	145	347	226	879
20	64	15	163	287	189	577	98	216	95	227	142	533
21	108	31	167	307	166	383	88	170	83	177	244	962
22	126	52	207	423	98	102	78	136	88	182	300	1210
23	128	56	218	473	98	102	80	134	85	187	346	1660
24	105	45	185	375	171	466	72	126	90	192	263	1230
25	87	38	218	504	190	564	55	101	98	211	227	987
26	85	38	300	776	186	628	72	143	80	165	230	963
27	83	37	276	670	181	645	87	170	63	137	203	691
28	65	22	192	344	163	572	74	149	87	200	234	941
29	53	13	196	376	145	427	68	139	100	270	300	1340
30	49	9.7	225	457	115	240	88	182	---	---	224	1020
31	46	6.8	---	---	131	267	123	254	---	---	251	1160
TOTAL	---	6411.6	---	11854	---	22125	---	7252	---	7394	---	18887

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	216	904	208	1730	353	7200	156	1150	0	.0	454	324
2	173	663	197	1600	297	5950	161	1160	0	.0	435	209
3	153	541	197	1510	310	6040	127	854	0	.0	494	369
4	129	418	215	1660	754	14500	123	764	0	.0	313	117
5	150	405	199	1550	367	7090	164	979	0	.0	197	44
6	165	508	185	1550	400	7700	164	855	0	.0	123	18
7	144	443	174	1540	1100	20700	99	213	0	.0	0	.00
8	137	429	250	2420	170	3130	165	277	2230	635	0	.00
9	164	553	220	2570	400	6480	148	180	3130	5950	0	.00
10	198	770	571	7790	242	3450	259	269	5580	10200	0	.00
11	228	985	477	6000	200	2710	312	265	4040	4880	0	.00
12	379	1760	303	4100	175	2100	87	38	1390	1010	0	.00
13	492	3370	322	5130	157	1760	92	27	832	876	0	.00
14	479	2880	314	4370	131	1280	83	23	1080	1220	0	.00
15	297	1290	475	6930	145	1350	52	14	783	1000	0	.00
16	278	1230	411	6920	163	1390	86	32	1450	1900	0	.00
17	397	2780	385	6370	160	1340	236	145	1770	2340	0	.00
18	306	1740	418	7400	237	2000	179	133	2150	2180	0	.00
19	430	4030	670	12200	154	1380	307	177	3520	2990	0	.00
20	490	4760	680	12500	555	5440	226	109	1020	771	0	.00
21	556	5610	586	11000	3520	34600	330	219	410	315	80	10
22	490	5290	466	8770	998	9220	1180	1390	894	724	75	3.4
23	445	5000	1090	20300	370	3020	504	351	5210	5230	0	.00
24	406	4690	975	18000	217	1690	275	100	5670	12200	0	.00
25	345	3610	560	10400	221	1780	100	22	5800	13500	0	.00
26	347	3520	434	8140	224	1830	80	11	7210	18200	0	.00
27	328	3220	463	8690	222	1840	56	6.0	3250	7550	0	.00
28	355	3600	515	9660	168	1350	40	2.9	3850	9930	121	35
29	387	3690	490	9310	160	1250	0	.00	5930	16300	120	35
30	260	2200	334	6530	179	1360	0	.00	2190	5910	158	104
31	---	---	274	5530	---	---	0	.00	1110	1650	---	---
TOTAL	---	70889	---	212170	---	160930	---	9765.90	---	127461.0	---	1268.40

TOTAL LOAD FOR YEAR: 656407.90 TONS.

08332050 BERNARDO INTERIOR DRAIN NEAR BERNARDO, NM

LOCATION.--Lat 34°24'56", long 106°49'15", Socorro County, Hydrologic Unit 13020203, on right bank 110 ft upstream from bridge on U.S. Highway 60, and 1.0 mi east of Bernardo.

PERIOD OF RECORD.--June 1936 to May 1937, October 1943 to current year. Monthly discharge only June 1936 to May 1937, published in WSP 828. October 1943 to September 1960 included in composite records for station 08332000 "Rio Grande near Bernardo". October 1960 to September 1964 monthly acre-ft published in WSP 1923. Daily records available in district files beginning October 1943.

GAGE.--Water-stage recorder. Altitude of gage is 4,714 ft from topographic map. June 4, 1936 to May 17, 1937, nonrecording gage 300 ft downstream and Oct. 1, 1943 to Jan. 12, 1978, water-stage recorder at site 150 ft downstream at different datum.

REMARKS.--Records good. This drain is 1 of 4 channels (stations 08331990, 08332010, and 08332030) carrying flow in valley cross section. For combined monthly flow in acre-ft of this drain, conveyance channel, floodway, and Lower San Juan Riverside drain see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 208 ft^3/s May 5, 1983; no flow at times. Prior to 1952, drain was subject to overflow from floodway.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	68	25	25	26	27	60	61	45	43	49	127
2	145	39	26	25	26	26	61	53	50	48	52	125
3	108	35	27	24	25	26	63	58	57	46	46	129
4	137	34	27	24	25	26	57	47	68	45	53	96
5	126	33	27	25	26	27	56	43	72	49	58	88
6	134	32	27	25	26	40	58	47	66	41	84	102
7	125	31	27	26	26	55	56	55	63	43	85	101
8	127	30	26	26	26	104	50	47	53	39	101	86
9	119	29	26	26	25	106	61	52	47	40	123	72
10	124	29	27	25	26	100	46	55	44	49	134	72
11	143	29	27	25	26	97	50	58	35	49	132	69
12	139	29	27	25	26	104	48	47	39	80	133	67
13	133	28	27	25	26	105	42	52	32	84	128	62
14	133	28	27	24	26	95	56	43	30	79	117	67
15	140	28	27	24	26	49	58	49	28	86	88	70
16	143	27	27	25	26	47	59	58	27	83	92	69
17	118	27	27	26	26	47	53	65	32	76	95	92
18	114	27	27	27	26	50	54	60	38	82	95	104
19	123	27	27	27	26	45	56	66	32	80	111	106
20	125	27	27	26	26	44	63	65	39	90	117	117
21	134	27	27	26	26	38	68	73	46	86	120	112
22	134	26	26	26	26	48	75	65	33	84	105	97
23	138	26	26	26	26	39	73	52	41	82	107	85
24	135	26	26	26	26	39	63	54	45	74	113	88
25	130	26	27	26	26	46	57	53	43	71	108	70
26	134	27	27	26	26	46	52	52	45	71	110	60
27	123	27	27	26	26	47	53	54	51	62	105	76
28	141	26	26	26	26	48	60	53	46	70	78	91
29	111	26	27	26	26	44	66	54	39	59	92	90
30	111	25	26	26	---	52	66	59	35	58	104	95
31	116	---	25	26	---	57	---	51	---	59	117	---
TOTAL	4000	899	825	791	751	1724	1740	1701	1321	2008	3052	2685
MEAN	129	30.0	26.6	25.5	25.9	55.6	58.0	54.9	44.0	64.8	98.5	89.5
MAX	145	68	27	27	26	106	75	73	72	90	134	129
MIN	108	25	25	24	25	26	42	43	27	39	46	60
AC-FT	7930	1780	1640	1570	1490	3420	3450	3370	2620	3980	6050	5330

CAL YR 1983 TOTAL 31233 MEAN 85.6 MAX 208 MIN 25 AC-FT 61950
WTR YR 1984 TOTAL 21497 MEAN 58.7 MAX 145 MIN 24 AC-FT 42640

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°38'08", long 107°09'56", in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 1.6 mi upstream from Arroyo Chico, 5.5 mi northeast of village of Guadalupe, and at mile 106.8.

DRAINAGE AREA.--420 mi^2, approximately.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,949 ft National Geodetic Vertical Datum of 1929. Prior to July 14, 1966 at datum 1.01 ft higher.

REMARKS.--Records poor. Diversions for irrigation of about 3,700 acres above station in past years, but present diversion negligible. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 13.2 ft^3/s, 9,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,940 ft^3/s July 29, 1967, gage height, 13.53 ft, from rating curve extended above 1,300 ft^3/s on basis of slope-area measurements at gage heights 7.75 ft and 10.60 ft; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft^3/s based on records for stations above and below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 902 ft^3/s at 2330 hours Aug. 7, gage height, 4.88 ft, no peak above base of 1,000 ft^3/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	.26	.29	15	6.5	23	20	40	32	.94	.00	1.3
2	20	.26	.30	9.4	12	42	8.2	41	32	.81	.00	1.0
3	3.4	.26	.27	3.9	11	37	7.0	43	42	.76	49	.94
4	2.6	.26	2.0	3.1	12	27	6.5	41	30	.70	53	.87
5	1.5	.26	2.1	4.2	11	11	5.4	50	31	.63	.99	1.0
6	1.0	.26	1.0	5.4	11	5.5	5.8	58	53	.00	.38	.47
7	.46	.28	.75	4.9	13	5.9	7.6	55	40	.00	61	.00
8	.30	.31	.50	4.5	23	5.1	11	57	35	.00	46	.00
9	.20	.10	.10	5.4	15	5.7	13	60	34	.00	4.3	.00
10	1.1	.00	.40	5.8	14	18	17	74	27	.00	2.3	.00
11	1.8	.00	.40	5.6	17	27	14	80	26	.00	1.0	.00
12	.50	.00	1.0	4.0	10	18	14	98	25	.00	.80	.47
13	.30	.00	1.1	4.5	8.0	20	14	103	23	56	.68	.58
14	.26	.00	.70	10	20	17	14	116	22	6.3	41	.00
15	.00	.00	.70	8.5	25	12	19	141	19	1.3	12	.92
16	.00	.00	.70	6.5	9.5	14	26	160	19	.42	17	2.0
17	.00	.00	.50	2.5	4.4	10	26	162	23	24	7.6	2.5
18	.00	.00	.40	2.1	7.0	5.6	30	128	17	13	4.9	9.8
19	.00	.00	1.0	2.7	5.9	7.3	40	119	42	3.0	2.1	6.5
20	.29	.00	.50	2.7	5.5	7.5	46	109	17	1.8	29	1.0
21	.10	.20	.50	2.3	9.9	7.5	52	103	20	.50	122	.37
22	.00	.26	.50	2.4	4.5	7.8	44	101	6.3	.34	8.2	.23
23	.00	.26	1.0	2.6	8.0	30	41	92	3.8	.20	4.9	2.4
24	.00	.28	1.0	3.5	24	13	39	107	2.3	.99	37	.83
25	.00	.26	1.8	5.0	9.2	6.7	40	94	1.6	.54	5.8	.58
26	.00	.26	2.2	7.0	6.9	2.6	44	85	1.4	.00	7.9	1.7
27	.00	.67	3.0	4.0	15	4.3	46	76	1.2	.00	7.6	1.0
28	.00	1.2	7.3	5.0	17	12	44	69	1.1	.00	5.9	.29
29	.00	.99	15	4.9	29	21	45	53	.98	.00	3.0	.19
30	.00	.99	17	4.5	---	25	42	24	1.2	.00	1.5	.17
31	.26	---	13	5.1	---	12	---	29	---	.00	1.3	---
TOTAL	82.07	7.62	77.01	157.0	364.3	460.5	781.5	2568	628.88	112.23	538.15	37.11
MEAN	2.65	.25	2.48	5.06	12.6	14.9	26.1	82.8	21.0	3.62	17.4	1.24
MAX	48	1.2	17	15	29	42	52	162	53	56	122	9.8
MIN	.00	.00	.10	2.1	4.4	2.6	5.4	24	.98	.00	.00	.00
AC-FT	163	15	153	311	723	913	1550	5090	1250	223	1070	74

CAL YR 1983 TOTAL 6637.96 MEAN 18.2 MAX 200 MIN .00 AC-FT 13170
WTR YR 1984 TOTAL 5814.37 MEAN 15.9 MAX 162 MIN .00 AC-FT 11530

08334000 RIO PUERCO ABOVE ARROYO CHICO NEAR GUADALUPE, NM
(FORMERLY PUBLISHED AS RIO PUERCO BELOW CABEZON, N. MEX.)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-56, 1981 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGES: July 1948 to June 1956, October 1981 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since August 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 190,000 mg/L Aug. 2, 1983; minimum daily mean, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 730,000 tons July 27, 1955; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 183,000 mg/L July 13; minimum daily mean, no flow on many days.
SEDIMENT LOADS: Maximum daily, 65,000 tons Aug. 21; minimum daily, 0 tons on many days.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)
OCT							
04...	1330	2.7	1120	16.5	37100	270	--
FEB							
14...	1115	71	1450	7.0	30500	5850	41
MAR							
07...	1230	17	1210	3.0	27400	1260	41
APR							
19...	1145	35	978	16.0	34100	3220	43
MAY							
11...	1205	91	968	15.0	56800	14000	29
JUN							
06...	1150	37	1240	20.0	25800	2580	39
JUL							
13...	0130	60	5800	--	279000	45200	26
13...	0330	141	3870	--	245000	93300	34
18...	1347	32	1960	27.0	75800	6550	53
AUG							
14...	1103	5.1	1800	18.5	222000	3060	25
14...	1120	5.8	1740	18.5	204000	3190	29
17...	1107	12	950	22.0	50700	1640	56
SEP							
16...	1945	6.1	1600	--	92600	1530	63
19...	1200	15	1770	--	89200	3610	66

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
OCT							
04...	--	--	98	--	--	--	--
FEB							
14...	46	56	--	86	96	99	100
MAR							
07...	50	64	--	82	93	99	100
APR							
19...	50	64	--	92	99	100	--
MAY							
11...	36	48	--	78	95	99	100
JUN							
06...	42	57	--	82	95	99	100
JUL							
13...	29	41	--	65	87	98	100
13...	39	52	--	74	91	99	100
18...	69	83	--	92	97	99	100
AUG							
14...	29	40	--	60	83	98	100
14...	32	44	--	66	88	99	100
17...	66	73	--	82	94	99	100
SEP							
16...	81	96	--	99	100	--	--
19...	80	97	--	99	100	--	--

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM -- Continued
(FORMERLY PUBLISHED AS RIO PUERCO BELOW CABEZON, N. MEX.)

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	98300	12500	4200	2.9	2420	1.9	12000	486	13100	230	27700	1690
2	79100	5960	6100	4.3	2840	2.3	16800	426	17000	551	29000	3320
3	53900	495	7700	5.4	2470	1.8	16800	177	18900	561	30000	3010
4	40200	282	7000	4.9	9870	54	14900	125	23200	752	28900	2110
5	24700	100	8000	5.6	11800	68	17100	194	23900	710	26600	790
6	21700	59	8000	5.6	6700	18	19500	284	23900	710	26500	392
7	15800	20	7800	5.9	5830	12	21600	286	25800	906	25800	410
8	14700	12	12000	10	4920	6.6	20500	249	26900	1670	26300	363
9	14700	7.9	8300	2.2	4270	1.2	21100	308	25600	1040	27100	413
10	24400	72	0	.00	5230	5.6	20900	327	25000	945	27900	1360
11	33300	162	0	.00	5690	6.1	21400	324	24500	1120	28600	2110
12	19900	27	0	.00	7590	20	21200	229	20000	540	25800	1220
13	11100	9.0	0	.00	7960	24	19200	233	20500	443	27200	1470
14	7250	5.1	0	.00	6740	13	23700	640	25200	1360	27200	1240
15	0	.00	0	.00	6680	13	20700	475	27200	1840	27100	854
16	0	.00	0	.00	6130	12	19300	339	23200	594	27600	1050
17	0	.00	0	.00	6050	8.2	12200	81	23900	284	26800	721
18	0	.00	0	.00	6230	6.7	5700	33	23800	448	26500	403
19	0	.00	0	.00	6300	17	3800	27	26600	426	26300	521
20	15000	12	0	.00	5900	8.0	4440	33	23100	344	25200	508
21	11900	3.2	2790	1.5	5660	7.6	3410	21	23800	634	24000	489
22	0	.00	2880	2.0	7130	9.6	4630	30	23900	293	24200	509
23	0	.00	2750	1.9	7450	20	4350	30	24700	534	23700	1950
24	0	.00	2740	2.1	7020	19	3140	30	23600	1520	23900	867
25	0	.00	2800	2.0	6850	34	3710	50	25600	637	23700	428
26	0	.00	2970	2.1	6580	40	3470	66	24600	457	24100	167
27	0	.00	3500	6.3	12000	97	3690	40	25500	1020	24000	277
28	0	.00	2330	7.2	20100	396	4320	58	25600	1150	26300	828
29	0	.00	2130	5.7	25500	1030	6080	80	27200	2130	25400	1470
30	0	.00	2250	6.0	15500	711	10900	132	---	---	30400	2050
31	6000	4.2	---	---	11000	386	11300	156	---	---	25500	826
TOTAL	---	19730.40	---	83.60	---	3049.6	---	5969	---	23849	---	33816

DAY	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	27400	1480	30100	3250	26700	2310	9000	23	0	.0	39200	134
2	24700	547	30900	3420	26200	2260	9000	20	0	.0	37200	100
3	23800	450	31000	3600	28200	3200	9000	18	36800	23100	35600	90
4	23100	405	31000	3430	26800	2200	8000	15	160000	41000	36200	85
5	22700	331	32700	4410	25800	2140	8000	14	86200	230	37700	102
6	24500	384	33200	5200	25800	3690	0	.00	27100	28	33700	43
7	26000	534	33700	5000	25000	2730	0	.00	90700	40700	0	.00
8	27200	808	33900	5220	24000	2290	0	.00	169000	28800	0	.00
9	28900	1010	34300	5560	24000	2200	0	.00	66000	766	10000	2.7
10	29800	1370	36900	7370	23000	1670	0	.00	32400	201	0	.00
11	29400	1110	41500	8960	23000	1610	0	.00	23500	63	0	.00
12	29100	1100	43900	11600	23000	1550	0	.00	21100	46	0	.00
13	30400	1150	45800	12700	22000	1370	183000	35900	21100	39	0	.00
14	30300	1150	48100	15100	22000	1330	122000	4280	103000	11400	0	.00
15	30700	1570	52000	19800	22000	1130	72600	588	121000	3920	0	.00
16	31000	2180	52900	22900	22000	1140	47400	230	68800	3160	0	.00
17	30000	2110	53500	23400	23000	1410	146000	197	68100	1400	0	.00
18	29800	2410	50000	17300	22000	1000	82900	67	58200	770	0	.00
19	32600	3520	47900	15400	25000	2860	46300	25	46400	263	0	.00
20	33000	4100	46700	13700	22000	1030	29700	79	58700	4600	0	.00
21	33100	4650	45500	12700	23000	1250	17600	26	180000	65000	42800	23
22	32100	3810	42700	11600	20000	341	0	.00	88900	1970	36900	23
23	31800	3520	40400	10000	15000	152	0	.00	60100	795	43600	272
24	31500	3320	40800	11800	10000	61	0	.00	102000	10200	61300	137
25	31900	3450	40600	10300	10000	43	0	.00	49400	774	46200	72
26	32200	3830	38400	8810	10000	37	0	.00	39300	838	43100	199
27	31900	3960	36100	7410	10000	32	0	.00	57100	1170	54400	153
28	31700	3770	34000	6330	9000	26	0	.00	60200	959	41300	32
29	30900	3750	30800	4410	9000	24	0	.00	48300	391	29900	15
30	30400	3450	27000	1750	10000	32	0	.00	40500	164	23700	11
31	---	---	27700	2170	---	---	0	.00	39300	138	---	---
TOTAL	---	65229	---	294600	---	41118	---	41482.00	---	242885.0	---	1493.70

TOTAL LOAD FOR YEAR: 773305.30 TONS.

08340500 ARROYO CHICO NEAR GUADALUPE, NM

LOCATION.--Lat 35°35'33", long 107°11'19", in NE¼ sec.30, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020205, on left bank 0.2 mi upstream from mouth, 4.1 mi northwest of Guadalupe, and 5.5 mi southwest of Cabezon.

DRAINAGE AREA.--1,390 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WSP 1282: 1944-50.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,921 ft National Geodetic Vertical Datum of 1929. Prior to June 21, 1968 at site 500 ft upstream at datum 2.00 ft higher.

REMARKS.--Water-discharge records fair. Diversions for irrigation of about 100 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 21.0 ft^3/s, 15,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft^3/s Sept. 12, 1972, gage height, 17.5 ft from floodmarks, from rating curve extended above 2,900 ft^3/s on basis of slope-area measurements at gage heights 11.6 ft and 14.8 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft^3/s at 0200 hours Aug. 23, gage height, 7.46 ft, no other peak above base of 2,500 ft^3/s; minimum, 0.01 ft^3/s June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	16	19	19	24	10	33	13	11	1.6	.14	13
2	349	7.8	25	17	23	10	28	9.8	14	1.0	.79	5.0
3	171	6.0	12	7.3	16	29	15	8.5	12	.76	11	2.6
4	51	5.8	8.6	5.4	20	22	11	7.8	16	.78	52	1.6
5	20	5.7	2.8	7.2	47	20	11	5.5	2.7	.57	2.5	1.2
6	15	5.7	.58	8.1	63	18	4.3	5.3	4.2	.71	20	.75
7	6.0	5.7	1.0	6.2	80	10	9.3	4.3	1.7	19	240	.53
8	5.0	5.7	8.7	5.5	96	15	5.9	5.1	.47	11	231	.57
9	6.0	5.7	15	4.6	77	13	6.6	5.0	.10	2.5	28	.45
10	7.0	5.9	7.1	5.2	57	13	5.6	5.0	1.1	27	6.9	.53
11	6.0	6.1	7.1	7.2	73	8.9	6.0	3.3	1.2	14	3.2	.75
12	6.0	6.1	9.1	.98	60	6.5	3.4	3.8	.70	5.5	2.1	2.6
13	5.0	6.1	2.0	4.7	19	6.1	4.1	5.3	.33	57	1.3	5.0
14	6.0	6.1	2.4	.72	98	9.0	3.4	5.0	.07	52	46	7.7
15	7.0	6.6	7.0	.24	53	17	4.0	3.2	50	3.9	32	12
16	7.0	8.0	7.7	9.3	25	10	4.2	8.7	18	30	48	314
17	7.7	10	4.9	11	30	1.0	4.3	5.9	3.0	22	26	96
18	6.0	9.3	12	27	13	.70	3.5	5.9	1.1	59	7.7	59
19	6.3	12	4.3	2.6	8.3	.53	2.6	4.3	.41	20	3.8	15
20	10	7.9	11	.96	7.7	.50	4.3	5.8	19	3.6	32	6.0
21	12	11	5.8	.25	9.2	.58	9.1	4.9	.73	1.3	70	5.7
22	10	9.7	12	.63	5.9	.86	14	4.2	.14	12	15	5.0
23	7.0	4.4	12	.42	8.7	.64	13	5.0	.02	13	1090	14
24	7.7	6.3	2.3	.54	10	.63	14	5.2	.02	38	146	5.0
25	6.8	16	157	.85	14	.60	13	3.6	.01	14	77	1.6
26	6.8	5.8	18	1.1	10	.86	7.3	3.8	5.6	1.6	248	43
27	8.8	1.8	14	5.2	14	17	7.2	4.1	3.0	1.3	29	73
28	14	1.4	30	5.0	12	16	11	3.6	1.1	.91	8.7	22
29	8.0	2.4	3.4	9.6	17	20	15	3.7	.39	.68	3.3	9.2
30	8.1	3.9	1.3	17	---	30	13	6.4	.21	.58	2.2	6.7
31	13	---	.72	20	---	30	---	5.8	---	.44	18	---
TOTAL	1249.2	210.9	423.80	210.79	990.8	337.40	286.1	170.8	168.30	415.73	2501.63	729.48
MEAN	40.3	7.03	13.7	6.80	34.2	10.9	9.54	5.51	5.61	13.4	80.7	24.3
MAX	450	16	157	27	98	30	33	13	50	59	1090	314
MIN	5.0	1.4	.58	.24	5.9	.50	2.6	3.2	.01	.44	.14	.45
AC-FT	2480	418	841	418	1970	669	567	339	334	825	4960	1450

CAL YR 1983 TOTAL 8103.50 MEAN 22.2 MAX 821 MIN .58 AC-FT 16070
WTR YR 1984 TOTAL 7694.93 MEAN 21.0 MAX 1090 MIN .01 AC-FT 15260

BEST COPY AVAILABLE

08340500 ARROYO CHICO NEAR GUADALUPE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-56, 1978 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGES: July 1948 to June 1956, October 1978 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since July 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 201,000 mg/l Sept. 18, 1981; minimum daily mean, no flow on many days of most years.
SEDIMENT LOADS: Maximum daily, 1,220,000 tons July 17, 1953; minimum daily, 0 tons on many days of most years.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 140,000 mg/L Oct. 1; minimum daily mean, 750 mg/L March 25.
SEDIMENT LOADS: Maximum daily, 282,000 tons Aug. 23; minimum daily, .04 tons June 25.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT									
04...	1120	77	871	12.5	15000	3120	--	--	--
17...	1200	6.2	1800	14.0	2990	50	--	--	--
NOV									
15...	1115	5.2	1960	4.0	1750	25	--	--	--
DEC									
09...	1200	9.0	1750	.0	4680	114	--	--	--
FEB									
22...	1245	1.9	651	8.5	43800	225	43	51	71
MAR									
07...	1430	5.3	1880	9.0	3800	54	59	77	94
APR									
17...	1000	3.3	1840	13.5	2940	26	62	63	93
19...	1000	2.6	2100	12.5	1450	10	72	79	86
MAY									
09...	1210	4.9	2020	15.0	2030	27	73	82	93
JUN									
04...	1815	2.2	4160	--	63000	374	62	74	94
JUL									
02...	1345	1.1	2660	30.0	5680	17	87	96	98
12...	1315	2.4	2390	26.0	27800	180	63	80	92
18...	1200	44	1630	23.5	57000	6770	59	68	87
AUG									
14...	1240	176	1520	22.5	66700	31700	46	55	80
14...	1245	176	1790	22.5	59500	28300	52	58	86

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
OCT									
04...	89	--	--	--	--	--	--	--	--
17...	93	--	--	--	--	--	--	--	--
NOV									
15...	93	--	--	--	--	--	--	--	--
DEC									
09...	65	--	--	--	--	--	--	--	--
FEB									
22...	--	--	--	--	--	94	99	100	--
MAR									
07...	98	99	100	--	--	--	--	--	--
APR									
17...	--	--	--	--	--	86	90	99	100
19...	87	87	91	98	100	--	--	--	--
MAY									
09...	98	99	100	--	--	--	--	--	--
JUN									
04...	--	--	--	--	--	99	100	--	--
JUL									
02...	99	100	--	--	--	--	--	--	--
12...	--	--	--	--	--	96	98	100	--
18...	--	--	--	--	--	93	97	100	--
AUG									
14...	--	--	--	--	--	90	96	100	--
14...	--	--	--	--	--	95	99	100	--

08340500 ARROYO CHICO NEAR GUADALUPE, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	140000	215000	4670	202	10400	534	10600	544	10300	667	5000	135
2	107000	101000	3910	82	15500	1050	12700	583	12300	764	4250	115
3	40200	18600	4310	70	12800	415	11300	223	14000	605	8200	642
4	15600	2150	4660	73	8570	199	8100	118	16500	891	7500	445
5	15000	810	4400	68	7070	53	6750	131	24000	3050	7400	400
6	15200	616	3250	50	6010	9.4	6100	133	31100	5290	6500	316
7	14800	240	2750	42	5560	15	5090	85	32200	6960	7510	203
8	15000	202	3000	46	6650	156	4560	68	41100	10700	17000	688
9	14900	241	2560	39	8810	357	4000	50	39400	8190	16100	565
10	14200	268	3430	55	12100	232	4200	59	31800	4890	14900	523
11	14300	270	3000	49	13500	259	6500	126	30000	5910	13500	324
12	12300	256	3000	49	14700	361	4500	12	28000	4540	12900	226
13	9750	158	2750	45	13500	73	4250	54	30000	1540	13300	219
14	7710	131	2200	36	13200	86	3300	6.4	37200	9840	13900	338
15	6020	163	2820	50	15400	291	2500	1.6	39900	5710	12900	592
16	4280	139	3800	82	17200	358	4000	100	40900	2760	8700	235
17	3030	63	4600	124	17700	234	3320	99	37700	3050	4350	12
18	5590	91	6100	153	18600	603	9550	696	38900	1370	3050	5.8
19	4240	72	5200	168	16100	187	8300	58	38300	858	2200	3.1
20	5010	135	7000	149	17800	529	6250	16	40100	834	1980	2.7
21	6000	194	8300	247	14200	222	5050	3.4	38800	964	1250	2.0
22	5150	139	7860	206	15400	499	4000	6.8	42300	674	1250	2.9
23	5500	104	7420	88	20000	648	3500	4.0	29500	693	1000	1.7
24	5040	105	7880	134	15300	95	3080	4.5	15000	405	1000	1.7
25	4910	90	12300	531	11200	4750	2990	6.9	11000	416	750	1.2
26	4750	87	12800	200	16000	778	1810	5.4	8000	216	797	1.9
27	4470	106	10000	49	18100	684	1000	14	6000	227	7600	349
28	4150	157	7320	28	20400	1650	1000	13	5000	162	13300	575
29	4070	88	6250	40	16300	150	1750	45	4400	202	13600	734
30	4270	93	6610	70	11500	40	5540	254	---	---	12800	1040
31	4540	159	---	---	8500	17	8300	448	---	---	15400	1250
TOTAL	---	341927	---	3225	---	15534.4	---	3968.0	---	82378	---	9949.0

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	16500	1470	14100	495	5550	165	5900	25	6050	2.3	32500	1140
2	11600	877	12100	320	18400	696	5650	15	4900	10	24200	327
3	8530	345	11000	252	20600	2140	5480	11	6000	178	17500	123
4	5980	178	10200	215	35100	1520	5270	11	60800	8540	10700	46
5	4900	146	8380	124	8000	58	5100	7.8	37000	250	6410	21
6	2990	35	7960	114	2990	34	5000	9.6	22100	1190	4310	8.7
7	3930	99	6700	78	2000	9.2	10600	544	63800	79400	3340	4.8
8	4100	65	6100	84	1330	1.7	14500	431	62300	71500	2500	3.8
9	3710	66	9270	125	1000	.27	14300	97	17600	1330	2170	2.6
10	3930	59	10600	143	2700	8.0	18500	1350	8650	161	2130	3.0
11	4510	73	10600	94	2700	8.7	33500	1270	8110	70	1840	3.7
12	4000	37	9250	95	2150	4.1	28300	420	29200	166	1610	11
13	4000	44	6930	99	1290	1.1	48500	8600	29700	104	1460	20
14	3720	34	5230	71	1010	.19	57000	8000	41200	6880	1390	29
15	3670	40	5000	43	16300	6780	41700	439	50000	4320	1230	40
16	3630	41	6050	142	21700	1050	49800	4030	53900	6990	52700	54900
17	2790	32	5000	80	4070	33	59000	3500	30800	2160	59400	15400
18	2140	20	4400	70	2000	5.9	60000	9560	39200	815	28500	4540
19	1350	9.5	3840	45	1000	1.1	58200	3140	35000	359	19300	782
20	8700	101	5110	80	24600	1260	46000	447	43300	3740	15300	248
21	11700	287	4600	61	8030	16	36000	126	67800	12800	11200	172
22	15500	586	3500	40	3480	1.3	37200	1210	41300	1670	8050	109
23	14700	516	4510	61	2530	.14	37800	1330	90600	282000	14000	529
24	13600	514	5500	77	2050	.11	41000	4210	57100	22500	15000	202
25	11300	397	4170	41	1600	.04	43200	1630	41100	8540	9190	40
26	11000	217	3420	35	8850	134	33000	143	41700	39900	11600	1350
27	11600	226	3680	41	7250	59	19800	69	13100	1030	68000	13400
28	13400	398	4300	42	6450	19	10100	25	10400	244	42200	2510
29	15000	607	3560	36	6300	6.6	7900	15	7000	62	28000	696
30	14700	516	5300	92	6300	3.6	7000	11	6020	36	15000	271
31	---	---	4700	74	---	---	6800	8.1	15100	1800	---	---
TOTAL	---	8035.5	---	3369	---	14016.05	---	50684.5	---	558747.3	---	96932.6

TOTAL LOAD FOR YEAR: 1188766.35 TONS.

08341400 BLUEWATER LAKE NEAR BLUEWATER, NM

LOCATION.--Lat 35°17'31", long 108°06'40", in SE¼ sec.9, T.12 N., R.12 W., Cibola County, Hydrologic Unit 13020207, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi west of Bluewater.

DRAINAGE AREA.--201 mi^2.

PERIOD OF RECORD.--June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (month end contents only).

GAGE.--Water-stage recorder. Datum of gage is 7,345.57 ft National Geodetic Vertical Datum of 1929. July 1958 to January 1961, nonrecording gage at nearby site, same datum. Gage heights have been converted to sea-level elevations.

REMARKS.--Reservoir is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft survey of 1945 at elevation 7,402.6 ft crest of uncontrolled siphon spillway which is vented to avoid drawdown below crest, and 44,200 acre-ft at elevation 7,405.6 ft crest of ungated spillway over dam. Capacity table used through 1944 showed a capacity of 50,300 acre-ft at crest of ungated spillway over dam, and that used from 1945-50, 43,500 acre-ft . Tables used prior to 1958 are not available and no adjustments are made for changes in tables. Dead storage, 3.4 acre-ft at elevation 7,345.4 ft sill of lower outlet tube. Lake not usually drawn below conservation pool level elevation 7,365.36 ft, below which ownership is by State Game and Fish Department. Above this level, water is owned and used by Bluewater-Toltec Irrigation Co. Figures given herein represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents determined, 47,100 acre-ft Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941 when peak discharge of 800 ft^3/s occurred at station 8 mi downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,470 acre-ft Apr. 13, elevation, 7,399.0 ft; minimum, 19,730 acre-ft Sept. 28-30, elevation, 7,389.4 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7397.5	30260	-------
Oct. 31	7397.5	30260	0
Nov. 30	7397.1	29680	- 580
Dec. 31	7396.9	29400	- 280
CAL YR 1983			+ 13640
Jan. 31	7396.8	29260	- 140
Feb. 29	7396.8	29260	0
Mar. 31	7397.4	30120	+ 860
Apr. 30	7398.5	31730	+ 1610
May 31	7396.6	28980	- 2750
June 30	7394.2	25720	- 3260
July 31	7391.9	22790	- 2930
Aug. 31	7390.5	21060	- 1730
Sept. 30	7389.4	19730	- 1330
WTR YR 1984			- 10530

08343000 RIO SAN JOSE AT GRANTS, NM

LOCATION.--Lat 35°09'16", long 107°52'11", in SW¼NW¼ sec.26, T.11 N., R.10 W., Cibola County, Hydrologic Unit 13020207, on right bank at bridge on El Morro St., 0.2 mi south of Santa Fe Ave. in Grants, and at mile 67.8

DRAINAGE AREA.--1,020 mi^2, approximately.

PERIOD OF RECORD.--October 1912 to February 1914, June 1914, October 1914 to February 1915, May 1915 to June 1921, September 1921 to June 1923, October 1923 to May 1926, September to December 1926, May 1949 to September 1966, June 1968 to current year. Monthly discharge only for some periods published in WSP 1312. Prior to October 1967, published as "Bluewater Creek at Grants".

REVISED RECORDS.--WSP 1512: 1913-14. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,468.34 ft National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926.

REMARKS.--Records good. Flow slightly regulated by Bluewater Lake (station 08341400) 24 mi upstream. Diversions and groundwater withdrawals for irrigation of about 4,500 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years (water years 1913, 1915-20, 1922, 1924-25, 1950-66, 1968-84), 3.17 ft^3/s, 2,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (1950-66 AND SINCE 1968).--Maximum discharge recorded, 1,760 ft^3/s Aug. 28, 1952, gage height, 5.35 ft, from rating curve extended above 300 ft^3/s on basis of velocity-area studies; no flow for long periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood observed occurred Sept. 6 or 7, 1909, when Bluewater Dam washed out. A flood in July 1919 probably exceeded the one in 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 338 ft^3/s at 1730 hours Aug. 22, gage height, 4.34 ft, no other peak above base of 200 ft^3/s; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.51	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.26	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.07	.00	.00	.00	.00	.00	.16	.00	.00	.00	23	.00
23	1.8	.00	.00	.00	.00	.00	1.2	.00	.00	.00	1.1	.00
24	1.8	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00
25	.50	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.63	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.7
27	1.8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65
28	1.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	9.40	.00	.00	.00	.00	.00	1.70	.00	.00	.00	26.82	2.35
MEAN	.30	.000	.000	.000	.000	.000	.057	.000	.000	.000	.87	.078
MAX	1.8	.00	.00	.00	.00	.00	1.2	.00	.00	.00	23	1.7
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	19	.00	.00	.00	.00	.00	3.4	.00	.00	.00	53	4.7

CAL YR 1983 TOTAL 2648.71 MEAN 7.26 MAX 179 MIN .00 AC-FT 5250
WTR YR 1984 TOTAL 40.27 MEAN .11 MAX 23 MIN .00 AC-FT 80

08343100 GRANTS CANYON AT GRANTS, NM

LOCATION.--Lat 35°09'39", long 107°50'15", in NE¼NE¼ sec.25, T.11 N., R.10 W., Cibola County, Hydrologic Unit 13020207, on upstream side of culvert under Roosevelt Avenue, in Grants, 0.2 mi east of intersection of Roosevelt and First Avenue, and 1.1 mi upstream from confluence with Rio San Jose (formerly Bluewater Creek).

DRAINAGE AREA.--13.0 mi^2.

PERIOD OF RECORD.--December 1961 to current year.

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 6,450 ft, from topographic map.

REMARKS.--Records fair except those for August and September, which are poor.

AVERAGE DISCHARGE.--23 years, 0.136 ft^3/s, 99 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft^3/s Aug. 26, 1963, gage height, 5.10 ft, from rating curve extended above 220 ft^3/s on basis of slope-area measurements at gage heights 3.17 ft, 5.10 ft, and 5.38 ft; maximum gage height, 5.38 ft Sept. 8, 1967; no flow for most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11 ft^3/s at 1530 hours Aug. 22, gage height, .50 ft, no peak above base of 175 ft^3/s; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.57	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.48	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.16	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.44
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.43	.44
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.046	.015
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.57	.44
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.8	.9

CAL YR 1983	TOTAL 31.22	MEAN .086	MAX 9.8	MIN .00	AC-FT 62
WTR YR 1984	TOTAL 1.87	MEAN .005	MAX .57	MIN .00	AC-FT 3.7

08343500 RIO SAN JOSE NEAR GRANTS, NM

LOCATION.--Lat 35°04'27", long 107°45'01", in SE¼SE¼ sec.23, T.10 N., R.9 W., Cibola County, Hydrologic Unit 13020207, on right bank at west boundary of Acoma Pueblo Grant, 8.5 mi southeast of Grants, and at mile 57.4.

DRAINAGE AREA.--2,300 mi^2, approximately, of which 1,130 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1936 to current year. Prior to October 1955, published as "San Jose River near Grants".

REVISED RECORDS.--WSP 898: 1936-39(M). WSP 1512: 1943. WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,269.47 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for September, which are poor. Flow slightly regulated by Bluewater Lake (station 08341400), 34 mi upstream. Diversions and ground-water withdrawal for irrigation of about 5,100 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--48 years, 6.74 ft^3/s, 4,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft^3/s Sept. 20, 1963, gage height, 4.87 ft, from rating curve extended above 450 ft^3/s on basis of slope-area measurements at gage heights 3.19 ft and 4.87 ft; minimum, 1.9 ft^3/s Feb. 21, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood probably occurred Sept. 6 or 7, 1909, following destruction of Bluewater dam. The peak of Sept. 20, 1963 may have been exceeded by those of July 1919, August and September 1929, and August 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 40 ft^3/s at 0930 hours Oct. 2, gage height, 2.09 ft, no peak above base of 100 ft^3/s; minimum daily, 3.1 ft^3/s Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	5.5	4.9	3.7	5.0	5.4	5.6	5.0	4.1	5.9	5.2	5.0
2	23	5.5	5.1	3.7	5.1	5.5	5.8	5.0	4.2	5.9	5.2	5.2
3	24	5.7	5.2	3.6	5.2	5.6	5.7	5.0	4.2	6.0	5.2	5.1
4	9.3	5.6	4.7	3.5	5.2	5.6	5.6	5.0	4.1	5.9	5.2	5.0
5	4.4	6.0	4.4	3.5	5.2	5.3	5.7	5.0	4.2	5.9	5.2	5.0
6	3.3	5.9	4.0	3.5	5.3	5.7	5.8	5.0	4.2	5.9	5.3	4.9
7	3.2	6.0	4.1	3.4	5.6	5.4	5.8	5.0	4.2	5.7	5.5	4.8
8	3.1	5.9	4.3	3.4	5.4	5.5	5.9	4.7	4.3	5.7	5.6	5.0
9	3.3	5.9	4.3	3.3	5.3	5.5	5.7	4.7	4.3	6.1	5.5	5.2
10	3.2	6.0	4.4	3.3	5.3	5.5	5.6	4.7	4.5	6.1	5.2	5.3
11	3.4	6.0	4.0	3.4	5.0	5.6	5.6	4.7	4.7	5.9	4.9	5.5
12	3.3	5.6	3.8	3.3	4.8	5.6	5.5	4.7	4.7	5.8	4.8	5.2
13	3.5	5.5	3.8	3.5	4.9	5.8	5.6	4.7	4.8	5.6	4.8	5.1
14	3.7	5.4	3.9	3.5	5.2	5.9	5.6	4.7	4.9	5.6	4.8	5.0
15	3.7	5.2	4.0	3.8	4.7	6.2	5.7	4.7	5.1	5.6	4.8	5.0
16	3.9	5.2	3.9	3.8	4.8	6.2	5.5	4.8	5.1	6.0	4.7	5.0
17	3.8	5.2	4.0	4.3	4.8	6.2	5.5	4.9	5.3	6.1	4.8	5.8
18	3.9	5.0	4.2	3.5	4.9	6.1	5.5	4.5	5.5	5.8	4.8	5.5
19	3.8	4.9	4.0	3.1	5.1	5.9	5.4	4.5	5.5	5.9	5.1	5.3
20	4.1	4.9	3.9	3.3	5.2	6.1	5.4	4.5	5.6	6.0	4.8	5.2
21	4.3	5.1	3.6	3.7	5.1	6.1	5.5	4.3	5.7	5.9	4.6	5.0
22	4.2	5.3	3.6	3.7	5.5	6.0	5.3	4.4	5.5	5.9	4.8	5.1
23	4.0	5.3	3.6	3.8	5.3	5.8	5.2	4.3	5.7	6.1	5.0	5.2
24	4.4	5.1	3.6	3.8	5.4	5.8	4.8	4.3	5.8	5.9	7.0	5.0
25	5.2	5.3	3.5	4.2	5.6	5.7	4.9	4.2	6.2	5.9	6.0	4.8
26	5.1	5.0	3.7	4.5	5.1	5.6	4.9	4.2	6.1	5.7	5.5	4.8
27	5.0	4.5	3.6	4.7	5.2	6.6	5.0	4.1	5.9	5.6	5.0	5.0
28	4.9	4.2	4.0	4.8	5.3	6.6	5.0	4.1	6.0	5.7	4.8	5.3
29	5.5	4.3	3.5	5.2	5.4	5.8	5.0	4.0	5.9	5.5	4.5	5.6
30	5.8	4.6	3.7	5.2	---	5.7	5.0	4.1	5.9	5.6	4.7	5.9
31	5.8	---	3.8	5.0	---	5.6	---	4.2	---	5.3	4.8	---
TOTAL	180.1	159.6	125.1	119.0	149.9	179.9	163.1	142.0	152.2	180.5	158.1	154.8
MEAN	5.81	5.32	4.04	3.84	5.17	5.80	5.44	4.58	5.07	5.82	5.10	5.16
MAX	24	6.0	5.2	5.2	5.6	6.6	5.9	5.0	6.2	6.1	7.0	5.9
MIN	3.1	4.2	3.5	3.1	4.7	5.3	4.8	4.0	4.1	5.3	4.5	4.8
AC-FT	357	317	248	236	297	357	324	282	302	358	314	307

CAL YR 1983 TOTAL 4429.1 MEAN 12.1 MAX 195 MIN 3.1 AC-FT 8790
WTR YR 1984 TOTAL 1864.3 MEAN 5.09 MAX 24 MIN 3.1 AC-FT 3700

NOTE: No gage-height record Aug. 21 to Sept. 30.

08349800 RIO PAGUATE BELOW JACKPILE MINE NEAR LAGUNA, NM

LOCATION.--Lat 35°07'09", long 107°19'58", in SW¼SE¼ sec.2, T.10 N., R.5 W., Cibola County, Hydrologic Unit 13020207, in Paguate Purchase Grant, near right bank on downstream end of bridge piling of the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.4 mi downstream from Rio Moquino, 4.2 mi upstream from Paguate Reservoir, 5.0 mi southeast of Paguate and 26 mi east of Grants.

DRAINAGE AREA.--107 mi^2.

PERIOD OF RECORD.--March 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft, from topographic map.

REMARKS.--Records fair except those for winter months and September, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 1.59 ft^3/s, 1,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,520 ft^3/s Aug. 16, 1982, gage height, 11.8 ft, from floodmarks, from rating curve extended above 20 ft^3/s on basis of slope-area measurement at gage height 8.60 ft and contracted-opening measurement at gage height 10.19 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 2	0945	160	4.22	Sept. 16	2115	381	5.26
July 1	1645	*1050	6.68	Sept. 21	1500	158	4.48

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.66	1.1	3.0	2.3	1.2	.87	.77	.46	39	.11	2.8
2	15	.66	1.2	1.4	1.3	1.0	.89	.72	.46	.24	.05	2.6
3	1.3	.66	1.2	2.7	2.1	1.0	.90	.72	.49	.00	.01	2.6
4	1.1	.71	1.2	2.6	1.9	1.1	.88	.68	.48	.00	.00	2.6
5	1.0	.80	1.5	2.0	1.8	1.6	.89	.69	.48	.00	.68	2.4
6	1.0	.78	1.3	1.2	1.9	1.3	.88	.68	.55	.00	.16	2.4
7	.91	.72	2.1	1.6	1.4	1.7	.83	.66	.49	.00	.84	2.3
8	.87	.76	2.7	1.5	1.2	1.3	.35	.60	.44	.00	3.1	2.2
9	.85	.78	1.5	1.2	1.1	1.2	.85	.63	.41	.00	.39	2.1
10	.85	.74	1.5	1.6	.99	1.1	.85	.67	.38	1.3	.10	1.9
11	.71	.88	1.3	2.7	1.1	1.1	.79	.66	.38	.01	.00	1.9
12	.66	.73	1.3	2.3	1.3	1.1	.76	.66	.36	.00	.00	1.8
13	.72	.87	2.0	2.2	1.2	1.0	.78	.66	.38	.00	.00	1.7
14	.72	1.0	2.0	1.7	1.0	.98	.74	.65	.40	.00	.00	1.7
15	.72	1.3	1.4	2.1	1.1	.97	.75	.64	.43	.00	.00	1.6
16	.72	1.3	2.1	2.7	1.1	.94	.78	.78	.45	.00	.00	37
17	.72	1.3	2.6	3.7	1.1	.90	.80	.78	.35	.00	.00	20
18	.69	1.2	1.5	3.0	1.4	.91	.77	.73	.30	.00	.00	5.0
19	.68	1.1	2.2	2.8	1.3	.92	.76	.68	.91	.01	.00	4.0
20	.79	1.2	2.1	2.2	1.1	.93	.80	.66	.69	.02	.23	1.0
21	.85	1.3	1.4	3.5	1.4	.94	.82	.66	.42	.05	.78	9.0
22	.85	1.3	1.6	2.9	1.5	.93	.83	.60	.33	.04	4.0	12
23	.80	1.8	1.3	2.1	1.3	.95	.78	2.2	.27	.05	4.0	7.0
24	.75	.97	1.4	2.0	1.6	.97	.77	1.1	.27	.01	4.1	3.0
25	.72	.95	1.3	2.7	1.2	.95	.76	.54	.34	.00	3.6	2.0
26	.76	1.6	1.5	2.4	1.7	.95	.81	.51	.31	.00	2.9	1.0
27	.72	2.9	1.5	2.5	1.5	1.1	.82	.46	.26	.00	3.9	21
28	.72	1.3	1.6	2.5	1.4	.92	.85	.46	.23	.00	3.6	9.0
29	.72	1.8	1.9	1.8	1.3	.89	.83	.48	.17	.00	3.3	3.0
30	.69	1.9	2.1	2.0	---	.89	.78	.45	.41	.00	3.1	2.0
31	.66	---	3.1	2.5	---	.91	---	.49	---	.00	2.9	---
TOTAL	39.35	33.97	52.5	71.1	40.59	32.65	24.47	21.67	12.30	40.73	41.85	168.6
MEAN	1.27	1.13	1.69	2.29	1.40	1.05	.82	.70	.41	1.31	1.35	5.62
MAX	15	2.9	3.1	3.7	2.3	1.7	.90	2.2	.91	39	4.1	37
MIN	.66	.66	1.1	1.2	.99	.89	.74	.45	.17	.00	.00	1.0
AC-FT	78	67	104	141	81	65	49	43	24	81	83	334

CAL YR 1983 TOTAL 818.25 MEAN 2.24 MAX 29 MIN .00 AC-FT 1620
WTR YR 1984 TOTAL 579.78 MEAN 1.58 MAX 39 MIN .00 AC-FT 1150

08351500 RIO SAN JOSE AT CORREO, NM

LOCATION.--Lat 34°58'03", long 107°10'10", in NE¼ sec.32, T.9 N., R.3 W., Cibola County, Hydrologic Unit 13020207, on left bank 0.3 mi downstream from State Highway 6, 1.2 mi northeast of Correo, and 13 mi upstream from mouth.

DRAINAGE AREA.--3,660 mi^2, approximately, of which about 1,130 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as "San Jose River at Correo".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,474.88 ft National Geodetic Vertical Datum of 1929. Oct. 1, 1958 to Sept. 30, 1975, water-stage recorder at site 1 mi upstream at datum 17.55 ft higher.

REMARKS.--Records fair except those for winter months, which are poor. Flow regulated to some extent since 1927 by Bluewater Lake (station 08341400) 79 mi upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years, 11.0 ft^3/s, 7,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,150 ft^3/s Aug. 11, 1955; maximum gage height, 20.7 ft, Aug. 22, 1958, backwater from dam (present datum); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood which probably occurred Aug. 21, 1935, reached a stage of 15.4 ft, from floodmarks, (discharge, about 11,000 ft^3/s), but was probably exceeded by the flood of Sept. 23, 1929 (discharge not determined), based on study of records for Rio Puerco at Rio Puerco.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 430 ft^3/s at 2045 hours Aug. 24, gage height, 3.56 ft; no peak above base of 800 ft^3/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	3.9	6.4	3.3	8.0	5.2	1.6	.00	.00	.00	.00	.32
2	41	3.9	5.1	3.2	7.8	5.2	1.1	.00	.00	.00	.00	.03
3	38	3.7	5.8	3.2	7.0	5.1	.78	.00	.00	.00	.00	.00
4	57	3.9	5.7	3.1	6.4	5.1	.97	.00	.00	.00	1.0	.00
5	29	4.1	5.6	3.1	6.3	5.0	.72	.00	.00	.00	2.0	.00
6	18	3.9	4.0	3.1	6.3	5.1	.00	.00	.00	.00	5.0	.00
7	13	3.8	3.5	3.2	6.2	4.8	.09	.00	.00	.00	10	.00
8	10	3.8	3.6	3.3	6.0	4.7	.07	.00	.00	.00	20	.00
9	39	3.7	3.6	3.5	6.0	4.5	.00	.00	.00	.00	3.5	.00
10	6.0	3.4	3.7	3.6	6.0	4.3	.00	.00	.00	.00	1.0	.00
11	3.0	2.7	3.5	3.5	5.9	4.0	.02	.00	.00	.00	.00	.00
12	3.1	2.8	3.3	3.5	5.8	3.5	.00	.00	.00	.00	.00	.00
13	3.0	3.3	3.2	3.6	5.9	3.0	.01	.00	.00	.00	.00	.00
14	3.1	3.5	3.2	3.7	6.0	2.9	.49	.00	.00	.00	.00	.00
15	3.2	3.6	3.3	4.0	5.8	2.8	.41	.00	.00	.00	.00	.00
16	3.3	3.9	3.4	4.2	5.6	2.7	.92	.00	.00	.00	.00	.00
17	3.3	4.0	3.5	5.0	5.7	2.7	.61	.00	.00	.00	.00	37
18	3.4	4.0	3.5	4.5	5.8	2.6	.04	.00	.00	.00	.00	36
19	3.3	4.1	3.4	4.0	6.0	2.6	.00	.00	.00	.00	.00	39
20	3.4	4.1	3.3	4.1	6.0	2.7	.00	.00	.00	.00	.00	14
21	3.5	4.0	3.2	4.2	6.2	3.0	.40	.00	.00	.00	.00	6.8
22	3.4	4.0	3.2	4.5	6.6	3.0	.18	.00	.00	3.4	.00	5.1
23	3.2	4.8	3.2	4.8	6.4	3.2	.00	.00	.00	.50	.00	13
24	3.4	4.4	3.1	5.2	6.2	3.2	.00	.00	.00	.00	174	6.9
25	3.8	4.5	3.1	5.4	6.0	3.1	.00	.00	.00	.00	146	5.3
26	4.0	4.7	3.2	6.6	5.8	3.0	.00	.00	.00	.00	82	5.3
27	4.0	4.3	3.3	6.0	5.6	3.1	.00	.00	.00	.00	54	58
28	3.9	4.0	3.3	6.4	5.4	2.5	.00	.00	.00	.00	14	51
29	3.7	4.1	2.9	7.1	5.3	2.4	.00	.00	.00	.00	6.1	8.0
30	3.9	4.7	3.1	6.8	---	2.6	.00	.00	.00	.00	3.1	5.0
31	4.0	---	3.2	7.0	---	3.0	---	.00	---	.00	1.1	---
TOTAL	362.9	117.6	115.4	136.7	178.0	110.6	8.41	.00	.00	3.90	522.80	290.75
MEAN	11.7	3.92	3.72	4.41	6.14	3.57	.28	.000	.000	.13	16.9	9.69
MAX	57	4.8	6.4	7.1	8.0	5.2	1.6	.00	.00	3.4	174	58
MIN	3.0	2.7	2.9	3.1	5.3	2.4	.00	.00	.00	.00	.00	.00
AC-FT	720	233	229	271	353	219	17	.00	.00	7.7	1040	577

CAL YR 1983	TOTAL	4033.37	MEAN	11.1	MAX	146	MIN	.00	AC-FT	8000
WTR YR 1984	TOTAL	1847.06	MEAN	5.05	MAX	174	MIN	.00	AC-FT	3660

08353000 RIO PUERCO NEAR BERNARDO, NM

LOCATION.--Lat 34°24'33", long 106°51'09", in SE¼ sec.8, T.2 N., R.1 E., Socorro County, Hydrologic Unit 13020204, on bridge on former U.S. Highway 85 and 0.2 mi upstream from Interstate Highway 25, 1.2 mi southwest of Bernardo, 3 mi upstream from mouth, and 18 mi south of Belen.

DRAINAGE AREA.--7,350 mi^2, approximately, of which at least 1,130 mi^2 does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1939 to current year. Fragmentary gage height record and footnotes concerning no flow for the period September 1910 to August 1914, published in WSP 358 and 388, are in error and should not be used.

REVISED RECORDS.--WSP 1512: 1941-42, 1944-45, 1946(P), 1947-49. WSP 1632: 1957. WSP 1732: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 4,722.34 ft National Geodetic Vertical Datum of 1929. Prior to Jan. 24, 1969, at datum 3.10 ft higher.

REMARKS.--Water-discharge records fair. Diversions for irrigation of about 11,500 acres above station (includes 3,700 acres irrigated wholly or partly from wells).

AVERAGE DISCHARGE.--44 years (water years 1941-84), 45.1 ft^3/s, 32,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft^3/s Sept. 23, 1941, from rating curve extended above 7,800 ft^3/s; maximum gage height, 16.9 ft present datum, Aug. 12, 1955; no flow for extended periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft^3/s, estimated on basis of peak at Rio Puerco). Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft^3/s, by slope-area method, from reports of State Engineer).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,690 ft^3/s Aug. 24, gage height, 10.02 ft, no peak above base of 2,000 ft^3/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	.00	.00	.00	.00	.00	11	18	50	.00	.00	.00
2	472	.00	.00	.00	.00	.00	22	13	40	.00	.00	.00
3	882	.00	.00	.00	.00	.00	20	11	50	.00	.00	.00
4	100	3.0	.00	.00	.00	2.0	20	7.6	40	1.2	.00	.00
5	50	1.6	.00	.00	1.9	38	15	3.8	65	.00	.00	.00
6	40	.00	.00	.00	27	49	5.0	3.2	16	.00	4.4	.00
7	20	.00	.00	.00	41	31	.00	2.8	8.5	.00	3.5	.00
8	18	.00	.00	.00	72	25	.00	2.5	4.7	.00	1.0	.00
9	15	.00	.00	8.1	114	20	.00	7.6	8.2	.00	526	.00
10	15	.00	.00	.00	146	10	.00	18	8.5	.48	186	.00
11	11	.00	.00	.00	106	8.9	1.3	19	3.8	1.1	40	.00
12	6.0	.00	.00	7.0	79	7.6	7.0	19	2.0	21	30	.00
13	4.5	.00	.00	.00	104	21	7.6	34	.00	3.8	20	.00
14	3.0	.00	.00	.00	35	24	7.9	57	.00	.00	806	.00
15	2.4	.00	.00	.00	40	21	6.3	78	.00	.00	150	.00
16	.00	.00	.00	.00	69	21	4.7	86	.00	.00	80	.00
17	.00	.00	.00	.00	71	18	2.8	136	.00	4.9	74	.00
18	.00	.00	.00	.00	37	13	.00	208	.00	3.2	10	280
19	.00	.00	.00	.00	32	10	.00	161	.00	191	5.0	299
20	.00	.00	.00	.00	33	.00	.32	125	.00	85	1.0	50
21	.00	.00	.00	.00	28	.00	5.2	110	.00	19	.24	20
22	.00	.00	.00	.00	22	.00	8.5	95	.00	35	2.2	10
23	.00	.00	.00	.00	19	.00	7.3	85	.00	.00	130	5.0
24	.00	.00	.00	.00	16	.00	26	78	.00	.00	720	.00
25	.00	.00	.00	.00	15	.00	18	78	.00	.00	250	.00
26	.00	.00	.00	.00	12	.00	13	95	.00	.00	175	.00
27	.00	.00	.00	.00	10	.00	11	85	.00	.00	266	.00
28	.00	.00	.00	.00	.00	.00	11	74	.00	.00	186	.00
29	.00	.00	.00	.00	.00	.00	20	65	.00	.00	20	2.0
30	.00	.00	.00	.00	---	.00	18	60	.00	.00	10	5.0
31	.00	---	.00	.00	---	4.5	---	58	---	.00	5.0	---
TOTAL	1688.90	4.60	.00	15.10	1129.90	324.00	268.92	1893.5	296.70	365.68	3701.34	671.00
MEAN	54.5	.15	.000	.49	39.0	10.5	8.96	61.1	9.89	11.8	119	22.4
MAX	882	3.0	.00	8.1	146	49	26	208	65	191	806	299
MIN	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00	.00	.00
AC-FT	3350	9.1	.00	30	2240	643	533	3760	589	725	7340	1330

CAL YR 1983	TOTAL	10347.57	MEAN	28.3	MAX	882	MIN	.00	AC-FT	20520
WTR YR 1984	TOTAL	10359.64	MEAN	28.3	MAX	882	MIN	.00	AC-FT	20550

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1956 to current year.
WATER TEMPERATURES: October 1964 to current year.
SUSPENDED-SEDIMENT DISCHARGES: October 1947 to current year.

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 11,400 microsiemens June 10, 1968; minimum daily, 238 microsiemens July 30, 1969.
WATER TEMPERATURES: Maximum daily, 32.0°C July 29, 1977; minimum daily, 0.0°C Dec. 30, 1971.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 267,000 mg/L July 26, 1957; minimum daily mean, no flow on many days of each year.
SEDIMENT LOADS: Maximum daily, 2,240,000 tons Aug. 7, 1957; minimum daily, 0 tons on many days of each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 8,200 microsiemens July 19; minimum daily, 444 microsiemens Aug. 6.
WATER TEMPERATURES: Maximum daily, 28.0°C May 22, July 13; minimum daily, 1.0°C Feb. 12.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 169,000 mg/L Aug. 7; minimum daily mean, no flow on many days.
SEDIMENT LOADS: Maximum daily, 333,000 tons Oct. 3; minimum daily, 0 tons on many days.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
FEB										
09...	1500	112	2100	2400	8.0	7.8	15.0	10.0	410	210
AUG										
24...	1330	939	2050	2410	7.5	7.3	27.0	22.0	760	640

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
FEB										
09...	110	33	370	8	7.0	820	90	1.0	11	1600
AUG										
24...	230	46	280	5	9.0	1100	51	.80	11	1800

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
FEB			
09...	1500	260	80
AUG			
24...	1330	220	30

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
FEB												
08...	1700	72	7.0	51500	10000	--	--	--	--	--	--	99
09...	1500	112	10.0	83900	25400	54	63	83	95	99	100	--
12...	0930	79	1.0	53000	11300	--	--	--	--	--	--	100
17...	0815	82	2.0	58100	12900	67	82	94	--	--	--	100
24...	1700	16	8.0	35600	1540	--	--	--	--	--	--	100
MAR												
05...	1700	38	4.0	81900	8400	--	--	--	--	--	--	98
09...	1500	18	12.0	75000	3650	70	86	97	--	--	--	100
APR												
05...	1700	15	17.0	85400	3460	69	81	97	--	--	--	100
MAY												
04...	1430	7.6	23.0	61900	1270	80	87	100	--	--	--	--
15...	1700	78	22.0	113000	23800	--	--	--	--	--	--	98
18...	1700	208	23.0	123000	69100	49	56	72	97	100	--	--
30...	1700	60	24.0	89000	14400	58	65	83	98	100	--	--
JUN												
03...	1430	E50	18.0	81800	--	--	--	--	--	--	--	100
06...	1230	16	20.0	90200	3900	64	76	96	100	--	--	--
JUL												
13...	1145	5.3	28.0	19500	279	81	92	97	--	--	--	100
19...	0800	191	17.0	128000	66000	55	68	85	97	100	--	--
AUG												
09...	1730	526	20.0	118000	168000	--	--	--	--	--	--	95
10...	1030	195	22.0	110000	57900	50	55	78	96	99	100	--
16...	1800	E80	23.0	65800	--	--	--	--	--	--	--	91
17...	1245	86	23.0	69500	16100	64	72	92	99	100	--	--
24...	1330	839	22.0	213000	483000	32	34	47	70	95	100	--
25...	1600	E175	21.0	67900	--	--	--	--	--	--	--	94

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2010				---	---	---	---	1800	---	---	---
2	2120				---	---	---	---	1810	---	---	---
3	1750				---	---	---	2420	1370	---	---	---
4	1390				---	---	2250	2310	1430	---	---	---
5	1380				---	2690	---	---	1970	---	---	---
6	1290				---	2400	---	---	2040	---	444	---
7	1430				---	2090	---	---	2300	---	3740	---
8	1540				2590	2250	---	---	---	---	---	---
9	1520				2120	2140	---	---	---	---	2490	---
10	4010				2060	2220	---	---	---	---	2070	---
11	2230				1930	---	---	2330	---	---	1970	---
12	---				1750	---	---	2240	---	---	---	---
13	---				1900	---	---	2180	---	1320	---	---
14	---				1690	---	---	2070	---	---	1820	---
15	---				1950	---	---	1990	---	---	2020	---
16	---				2070	---	---	1910	---	---	2030	---
17	---				1900	2310	---	1840	---	---	2380	---
18	---				1820	2610	---	1710	---	---	2210	2380
19	---				2020	---	---	1750	---	8200	---	1730
20	---				2040	---	---	1740	---	---	---	1660
21	---				---	---	---	1780	---	---	---	1520
22	---				---	---	---	1700	---	1990	1390	1550
23	---				---	---	2630	1770	---	---	2360	---
24	---				2390	---	2390	1810	---	---	2050	---
25	---				2710	---	2420	1780	---	---	1700	---
26	---				---	---	2470	1750	---	---	1450	---
27	---				---	---	---	1770	---	---	1360	---
28	---				---	---	---	1760	---	---	1530	---
29	---				---	---	2680	1760	---	---	1490	---
30	---				---	---	---	1880	---	---	---	---
31	---				---	---	---	1900	---	---	---	---
MEAN	1880				2060	2340	2470	1920	1820	3840	1920	1770

WTR YR 1984 MEAN 2050 MAX 8200 MIN 444

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0				---	---	---	---	24.0	---	---	---
2	13.0				---	---	---	---	18.0	---	---	---
3	12.0				---	---	---	20.5	19.0	---	---	---
4	15.0				---	---	17.0	23.0	19.0	---	---	---
5	15.0				---	4.0	---	---	20.0	---	---	---
6	15.0				---	6.0	---	---	24.0	---	18.0	---
7	17.0				---	9.0	---	---	26.0	---	15.0	---
8	14.0				7.0	11.0	---	---	---	---	---	---
9	15.0				10.0	11.0	---	---	---	---	20.0	---
10	15.0				6.0	14.0	---	---	---	---	19.0	---
11	14.0				4.0	---	---	24.0	---	---	14.0	---
12	---				1.0	---	---	20.0	---	---	---	---
13	---				6.0	---	---	24.0	---	28.0	---	---
14	---				6.0	---	---	24.0	---	---	22.0	---
15	---				9.0	---	---	22.0	---	---	21.0	---
16	---				6.0	---	---	22.0	---	---	23.0	---
17	---				2.0	16.0	---	22.0	---	---	24.0	---
18	---				8.0	13.0	---	23.0	---	---	21.0	23.0
19	---				5.5	---	---	18.0	---	17.0	---	23.0
20	---				3.5	---	---	24.0	---	---	---	24.0
21	---				---	---	---	24.0	---	---	---	21.0
22	---				---	---	---	28.0	---	19.0	25.0	21.0
23	---				---	---	21.0	23.0	---	---	19.0	---
24	---				8.0	---	18.0	24.0	---	---	21.0	---
25	---				10.0	---	18.0	25.0	---	---	21.0	---
26	---				---	---	13.0	17.0	---	---	25.0	---
27	---				---	---	---	25.0	---	---	26.0	---
28	---				---	---	---	25.0	---	---	26.0	---
29	---				---	---	7.0	24.0	---	---	27.0	---
30	---				---	---	---	24.0	---	---	---	---
31	---				---	---	---	23.0	---	---	---	---
MEAN	14.5				6.0	10.5	15.5	23.0	21.5	21.5	21.5	22.5

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	86000	11600	0	.00	0	.00	0	.00	0	.0	0	.00
2	132000	167000	0	.00	0	.00	0	.00	0	.0	0	.00
3	140000	333000	0	.00	0	.00	0	.00	0	.0	0	.00
4	90200	24400	3650	140	0	.00	0	.00	0	.0	4690	401
5	57500	7760	2600	55	0	.00	0	.00	1790	218	66000	6770
6	41100	4440	0	.00	0	.00	0	.00	34200	2490	72500	9590
7	33000	1780	0	.00	0	.00	0	.00	31500	3490	82600	6910
8	26500	1290	0	.00	0	.00	0	.00	37200	7230	72500	4890
9	30200	1220	0	.00	0	.00	5840	151	32400	9930	76000	4100
10	41500	1680	0	.00	0	.00	0	.00	31400	13000	64000	1730
11	22400	665	0	.00	0	.00	0	.00	63800	18300	59000	1420
12	14800	240	0	.00	0	.00	5280	205	52700	11200	55000	1130
13	9500	115	0	.00	0	.00	0	.00	55000	15400	82700	4690
14	5200	42	0	.00	0	.00	0	.00	49500	4680	99800	6470
15	2000	13	0	.00	0	.00	0	.00	47500	5130	87600	4970
16	0	.0	0	.00	0	.00	0	.00	57300	10700	85500	4850
17	0	.0	0	.00	0	.00	0	.00	66500	12900	100000	4860
18	0	.0	0	.00	0	.00	0	.00	58600	5850	79800	2800
19	0	.0	0	.00	0	.00	0	.00	56300	4860	38500	1040
20	0	.0	0	.00	0	.00	0	.00	55500	4950	0	.00
21	0	.0	0	.00	0	.00	0	.00	41000	3100	0	.00
22	0	.0	0	.00	0	.00	0	.00	36700	2180	0	.00
23	0	.0	0	.00	0	.00	0	.00	34900	1700	0	.00
24	0	.0	0	.00	0	.00	0	.00	35300	1520	0	.00
25	0	.0	0	.00	0	.00	0	.00	31400	1270	0	.00
26	0	.0	0	.00	0	.00	0	.00	19800	642	0	.00
27	0	.0	0	.00	0	.00	0	.00	9900	267	0	.00
28	0	.0	0	.00	0	.00	0	.00	0	.0	0	.00
29	0	.0	0	.00	0	.00	0	.00	0	.0	0	.00
30	0	.0	0	.00	0	.00	0	.00	---	---	0	.00
31	0	.0	---	---	0	.00	0	.00	---	---	27500	914
TOTAL	---	555245.0	---	195.00	---	0.00	---	356.00	---	141007.0	---	67535.00

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	70000	2080	61000	2960	70700	9540	0	.0	0	.0	0	.0
2	72500	4310	62500	2190	85700	9260	0	.0	0	.0	0	.0
3	100000	5400	65000	1930	90000	12200	0	.0	0	.0	0	.0
4	107000	5780	62500	1280	63100	6810	53400	157	0	.0	0	.0
5	87500	3540	36000	369	102000	17900	0	.0	0	.0	0	.0
6	70000	945	27600	238	85700	3700	0	.0	21300	1220	0	.0
7	0	.00	26000	197	75400	1730	0	.0	169000	1600	0	.0
8	0	.00	26000	175	56300	714	0	.0	45200	122	0	.0
9	0	.00	52500	1080	84900	1880	0	.0	134000	186000	0	.0
10	0	.00	62400	3030	65100	1490	9750	101	98000	49200	0	.0
11	15100	53	74000	3800	52400	538	41000	122	77200	8340	0	.0
12	71500	1350	65000	3330	40000	216	21100	8160	54900	4450	0	.0
13	71000	1460	81000	7440	0	.00	25200	259	29800	1610	0	.0
14	66500	1420	97500	15000	0	.00	0	.0	66200	144000	0	.0
15	61500	1050	116000	24400	0	.00	0	.0	45800	18500	0	.0
16	55000	698	121000	28100	0	.00	0	.0	56600	12200	0	.0
17	37500	283	132000	48500	0	.00	52900	816	78400	15700	0	.0
18	0	.00	132000	74100	0	.00	52500	454	82500	2230	85800	110000
19	0	.00	115000	50000	0	.00	153000	94500	66800	902	102000	82300
20	24400	340	149000	50300	0	.00	114000	27100	59700	161	50200	6780
21	60000	842	94700	28100	0	.00	65000	3330	50000	32	36000	1940
22	76000	1740	92900	23800	0	.00	74500	12800	49800	296	35000	945
23	89000	1750	91300	21000	0	.00	0	.0	131000	46000	30000	405
24	80000	5620	89100	18800	0	.00	0	.0	122000	237000	0	.0
25	75000	3650	96100	20200	0	.00	0	.0	70000	47300	0	.0
26	65000	2280	109000	28000	0	.00	0	.0	56100	26500	0	.0
27	57600	1710	102000	23400	0	.00	0	.0	73800	53000	0	.0
28	62500	1860	84200	16800	0	.00	0	.0	80200	40300	20000	108
29	76000	4100	85200	15000	0	.00	0	.0	50500	2730	15000	202
30	51000	2480	96700	15700	0	.00	0	.0	45000	1220	---	---
31	---	---	81000	12700	---	---	0	.0	37500	506	---	---
TOTAL	---	54741.00	---	541919	---	65978.00	---	147799.0	---	901119.0	---	202680.0

TOTAL LOAD FOR YEAR: 2678574.00 TONS.

08354000 RIO SALADO NEAR SAN ACACIA, NM

LOCATION.--Lat 34°17'50", long 106°53'59", in NW¼ sec.24, T.1 N., R.1 W., Socorro County, Hydrologic Unit 13020209, at former bridge site 0.3 mi upstream from bridge on Interstate Highway 25, 3.1 mi upstream from mouth, 2.9 mi north of San Acacia, and 15 mi north of Socorro.

DRAINAGE AREA.--1,380 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year (discontinued).

REVISED RECORDS.--WSP 1512: 1948-49, 1955. WSP 1632: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 4,765 ft, from topographic map. Prior to Sept. 14, 1966, at site 1.7 mi downstream at different datum.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 100 acres above station.

AVERAGE DISCHARGE.--37 years, 14.3 ft^3/s, 10,360 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,200 ft^3/s July 31, 1965, gage height, 5.54 ft, from floodmarks, present site and datum, from rating curve extended above 900 ft^3/s on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Another flood occurred Aug. 12, 1929 (discharge, 27,400 ft^3/s, by slope-area method), from reports of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,000 ft^3/s at 2330 hours Aug. 5, gage height, 4.30 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	335	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1540	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1280	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	300	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	40	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	199	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	10
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	19	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	121	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3887.00	10.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	125	.33
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1540	10
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7710	20

CAL YR 1983 TOTAL 451.00 MEAN 1.24 MAX 150 MIN .00 AC-FT 895
WTR YR 1984 TOTAL 3897.00 MEAN 10.6 MAX 1540 MIN .00 AC-FT 7730

NOTE: No gage-height record Jan. 19 to Mar. 5.

08354000 RIO SALADO NEAR SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year (discontinued).

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
AUG											
06...	1515	70	850	869	7.8	7.9	29.0	31.0	190	87	55
24...	1530	98	800	811	8.3	7.9	28.5	30.0	150	58	48

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
AUG										
06...	12	100	3	4.5	230	48	.70	14	520	.38
24...	8.4	100	4	4.1	200	46	.80	12	480	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
AUG				
06...	1515	--	12	310
24...	1530	210	17	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUN									
29...	1200	.00	32.0	64800	.00	81	95	97	100
AUG									
06...	1315	70	31.0	44800	8470	--	--	--	100
06...	1515	70	31.0	35500	6710	--	--	--	98

08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, NM

LOCATION.--Lat 34°15'17", long 106°53'43", in SE¼NW¼ sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank at San Acacia, and 0.5 mi downstream from point of diversion.

PERIOD OF RECORD.--April 1936 to September 1964 (monthly discharge only), October 1964 to current year.

REVISED RECORDS.--WSP 1242: 1951.

GAGE.--Water-stage recorder. Datum of gage is 4,660.16 ft National Geodetic Vertical Datum of 1929. Prior to Mar. 8, 1958, at site 300 ft upstream (in old channel) at datum 0.42 ft lower.

REMARKS.--Records fair. This canal is 1 of 3 channels (stations 08354800, 08354900) carrying flow in valley cross section. For combined monthly flow in acre-ft of this canal, conveyance channel, and floodway, see tabulation below daily table for 08354900. Canal diverts water from right bank of Rio Grande for irrigation of about 8,000 acres. Alamillo Acequia and 3 other smaller ditches divert water from canal above station for irrigation of about 400 acres. Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft or 9% of the initial canal flow was diverted before reaching the regular gaging station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 274 ft^3/s June 22, 1980; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	124	20	.00	.00	.00	193	209	224	212	94	203
2	45	109	19	.00	.00	5.8	209	218	210	218	88	208
3	45	95	20	.00	.00	17	201	199	204	200	84	214
4	35	58	26	12	.00	19	192	210	210	180	156	195
5	25	.00	25	19	.00	37	185	208	215	180	196	193
6	11	.00	20	11	.00	72	200	212	217	161	136	145
7	59	19	33	9.0	.00	68	194	216	218	179	163	169
8	112	7.8	39	8.2	.00	63	189	223	243	209	157	157
9	110	.00	21	7.4	.00	68	180	250	240	217	220	121
10	108	21	14	7.4	.00	76	184	266	221	223	173	116
11	114	19	14	.00	.00	94	181	255	226	263	222	106
12	119	19	14	.00	.00	114	182	253	228	255	215	112
13	119	22	22	.00	.00	124	170	252	237	226	217	152
14	118	19	38	.00	.00	114	138	244	215	156	198	163
15	119	19	46	.00	.00	119	147	243	223	135	158	167
16	109	7.4	22	.00	.00	70	115	230	208	160	231	206
17	102	.00	19	.00	.00	73	132	223	228	178	197	202
18	103	.00	15	.00	.00	100	135	214	242	206	158	234
19	93	.00	15	.00	.00	107	153	232	258	192	199	170
20	52	.00	14	.00	.00	113	156	231	249	162	166	166
21	55	.00	13	.00	.00	159	142	227	249	149	156	158
22	66	69	9.8	.00	.00	169	125	207	265	214	164	157
23	68	61	14	.00	.00	157	144	217	244	191	147	130
24	87	44	.00	.00	.00	145	158	207	238	182	153	144
25	96	33	.00	.00	.00	173	181	199	234	207	91	110
26	105	33	.00	.00	.00	195	164	228	237	188	68	124
27	116	32	.00	.00	.00	178	142	237	232	159	98	79
28	117	29	.00	.00	.00	190	182	224	220	162	73	161
29	120	26	.00	.00	.00	184	194	240	209	136	58	157
30	120	23	.00	.00	---	185	192	218	207	115	66	142
31	125	---	.00	.00	---	210	---	226	---	92	195	---
TOTAL	2713	889.20	492.80	74.00	.00	3398.80	5060	7018	6851	5707	4697	4761
MEAN	87.5	29.6	15.9	2.39	.000	110	169	226	228	184	152	159
MAX	125	124	46	19	.00	210	209	266	265	263	231	234
MIN	11	.00	.00	.00	.00	.00	115	199	204	92	58	79
AC-FT	5380	1760	977	147	.00	6740	10040	13920	13590	11320	9320	9440

CAL YR 1983 TOTAL 34308.00 MEAN 94.0 MAX 250 MIN .00 AC-FT 68050
WTR YR 1984 TOTAL 41661.80 MEAN 114 MAX 266 MIN .00 AC-FT 82640

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM
(Surveillance network)

LOCATION.--Lat 34°14'54", long 106°54'04", in SW¼ sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank 75 ft upstream from railway crossing, 0.5 mi south of San Acacia, and 1.2 mi downstream from San Acacia diversion dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1964 included in composite flow of station "08355000 Rio Grande at San Acacia," October 1960 to September 1964 (monthly discharge published in WSP 1923 with records for station 08355000), October 1964 to current year. Daily records 1958-64 are available in files at district office.

GAGE.--Water-stage recorder. Datum of gage is 4,652.5 ft National Geodetic Vertical Datum of 1929, (levels by Bureau of Reclamation).

REMARKS.--Water-discharge records good. Conveyance channel, constructed in 1958, is 1 of 3 channels (stations 08354500, 08354900) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft^3/s. For combined monthly flow in acre-ft of this channel, floodway, and Socorro main canal north see tabulation below daily table for station 08354900.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,950 ft^3/s May 12, 13, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.84	1.1	885	958	930	956	1520	953	1190	1460	8.0	277
2	1.1	1.1	915	782	855	821	1390	1070	1510	1480	7.0	176
3	1.3	1.1	1010	712	832	741	1310	1130	1420	1430	6.2	184
4	1.3	1.3	1080	700	823	737	1050	1200	1490	1390	6.4	210
5	1.1	1.4	1180	708	841	744	893	1230	1420	1410	65	57
6	1.1	1.4	1170	978	853	749	1190	1250	1410	1120	111	43
7	1.1	1.6	1290	1030	850	734	1230	1360	1390	630	115	19
8	1.1	2.0	1330	915	812	623	1190	1500	1300	417	220	3.1
9	1.2	1.5	1220	928	833	594	1270	1500	1400	368	701	3.2
10	1.2	1.4	1080	945	859	519	1400	1490	1440	201	1050	3.2
11	.96	1.5	1050	952	855	481	1550	1450	1460	199	607	2.4
12	.90	1.5	995	918	838	520	1520	1490	1480	86	430	.73
13	.88	1.5	1070	752	847	530	1520	1390	1470	67	496	.75
14	.88	1.6	1220	147	821	512	630	1360	1520	53	704	.81
15	.88	1.6	1480	249	805	557	33	1410	1540	49	428	.84
16	.88	1.8	1310	958	806	647	34	1390	1450	42	150	.87
17	.88	13	1300	1260	833	1000	30	1320	1490	176	240	.85
18	.96	48	1270	1350	825	1020	13	1310	1450	173	170	111
19	1.0	90	1230	1200	857	1360	10	1280	1480	351	160	313
20	1.0	109	1210	937	896	1290	6.4	1190	1480	285	170	170
21	1.0	475	1130	864	837	1260	4.3	1200	1470	209	150	169
22	1.0	750	710	747	810	1360	4.0	1140	1520	339	140	84
23	1.1	805	391	682	836	1700	3.3	1050	1590	407	430	42
24	1.1	798	1010	711	841	1690	3.1	1120	1620	162	529	40
25	1.0	805	1180	696	831	1520	2.7	1020	1620	33	1160	33
26	1.1	915	1220	778	807	1450	13	1090	1550	25	1100	61
27	1.1	952	1240	864	810	1360	461	1120	1530	15	744	161
28	1.1	815	1250	803	827	1430	875	1130	1520	12	887	173
29	1.1	798	1180	782	942	1790	921	1210	1520	10	1010	287
30	1.1	865	958	892	---	1740	961	1190	1480	8.0	927	319
31	1.1	---	925	923	---	1700	---	1220	---	8.0	577	---
TOTAL	32.36	8261.4	34489	26121	24412	32135	21037.8	38763	44210	12615.0	13498.6	2945.75
MEAN	1.04	275	1113	843	842	1037	701	1250	1474	407	435	98.2
MAX	1.3	952	1480	1350	942	1790	1550	1500	1620	1480	1160	319
MIN	.84	1.1	391	147	805	481	2.7	953	1190	8.0	6.2	.73
AC-FT	64	16390	68410	51810	48420	63740	41730	76890	87690	25020	26770	5840

CAL YR 1983 TOTAL 43801.84 MEAN 120 MAX 1480 MIN .43 AC-FT 86880
WTR YR 1984 TOTAL 258520.91 MEAN 706 MAX 1790 MIN .73 AC-FT 512800

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected about 100 ft downstream from discharge station.

PERIOD OF RECORD.--Water years 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: May 1959 to current year.
SUSPENDED-SEDIMENT DISCHARGES: January 1959 to current year.

REMARKS.--When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia NM or 08354900 Rio Grande Floodway at San Acacia NM, samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,840 microsiemens Oct. 8, 1964; minimum daily, 136 microsiemens June 19, 1967.
WATER TEMPERATURES: Maximum daily, 36.0°C July 13, 1970, Aug. 13, 1978; minimum daily, 0.0°C on several days during winter periods of most years.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 141,000 mg/L Aug. 10, 1959; minimum daily mean, no flow on many days during most years.
SEDIMENT LOADS: Maximum daily, 528,000 tons Aug. 28, 1972; minimum daily, 0 tons on many days during most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,840 microsiemens Sept. 13; minimum daily, 282 microsiemens June 6.
WATER TEMPERATURES: Maximum daily, 28.0°C on several days during August; minimum daily, 3.0°C Dec. 11, 13, Jan. 5, 19.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 65,900 mg/L Sept. 13; minimum daily mean, 30 mg/L Sept. 17.
SEDIMENT LOADS: Maximum daily, 118,000 tons Aug. 25; minimum daily, 0.7 tons Sept. 17.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
JAN 05...	1015	718	520	--	8.2	--	3.5	3.0	10.8	29	--
MAR 14...	1100	527	675	681	8.2	8.0	19.0	13.0	8.5	82	170
MAY 11...	1045	1490	335	349	8.0	7.9	27.0	17.0	8.0	41	120
JUL 12...	1045	80	590	603	8.1	8.1	27.0	23.0	6.6	83	180
SEP 20...	1115	159	1100	--	8.0	--	23.5	19.0	7.6	480	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
JAN 05...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	13	51	11	69	2	4.4	170	12	160	140	31
MAY 11...	13	37	6.5	23	1	2.9	130	--	100	59	9.5
JUL 12...	0	54	10	54	2	4.8	220	.000	200	110	26
SEP 20...	--	--	--	--	--	--	--	--	--	--	--

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JAN 05...	--	--	--	.50	.50	.250	.75	1.5	.940	.420	5.6
MAR 14...	.60	21	440	.70	.70	.050	3.0	3.7	2.30	.220	22
MAY 11...	.30	18	220	.30	.32	.070	.93	1.3	.050	.050	9.5
JUL 12...	.50	24	390	.50	.47	.030	2.5	3.0	.850	.420	16
SEP 20...	--	--	--	1.0	.91	.040	21	22	8.30	.020	130

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
MAR 14...	1100	--	--	130	--	--	--	--	--	--
MAY 11...	1045	--	--	50	--	--	--	--	--	--
JUL 12...	1045	5	6	110	<1	<1	40	<10	37	4

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAR 14...	11	--	--	--	--	--	--	--	--
MAY 11...	15	--	--	--	--	--	--	--	--
JUL 12...	7	26	3	<.1	<.1	<1	<1	130	13

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
MAR 14...	1100	--	--	--	--	--	--	--	--	--
SEP 20...	1115	<.1	<.010	<.1	<.010	<.010	<.010	.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAR 14...	--	--	--	--	--	--	--	--	--
SEP 20...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 14...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 20...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JAN 05...	1015	180	710
MAR 14...	1100	K170	3300
MAY 11...	1045	210	530
JUL 12...	1045	E480	1800
SEP 20...	1115	5000	8400

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
JAN								
05...	1015	718	3.0	2620	5080	--	--	--
FEB								
12...	1400	930	5.0	8600	21600	70	80	93
MAR								
07...	1630	778	7.0	2030	4260	72	81	93
14...	1100	527	13.0	5210	7410	68	82	98
19...	1630	1220	17.0	1250	4120	--	--	--
APR								
04...	1630	1100	15.0	2850	8460	65	78	98
08...	1630	1210	17.0	541	1770	--	--	--
27...	1630	574	19.0	1250	1940	37	47	63
MAY								
11...	1045	1490	17.0	3680	14800	--	--	--
12...	1630	1480	23.0	1460	5830	--	--	--
15...	1630	1480	23.0	2170	8670	--	--	--
25...	1630	1290	24.0	1520	5290	27	31	46
JUN								
04...	1630	1580	26.0	2710	11600	33	46	68
JUL								
11...	1630	472	27.0	21900	27900	--	--	--
12...	1045	80	23.0	1570	339	69	84	94
AUG								
09...	1630	247	27.0	38700	25800	--	--	--
10...	1630	1150	27.0	22200	68900	52	66	84
19...	1630	306	28.0	43200	35700	--	--	--
23...	1630	215	27.0	36900	21400	58	75	92
SEP								
13...	1630	155	27.0	65300	27300	--	--	--
20...	1115	159	19.0	23600	10100	65	78	90

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
JAN							
05...	--	--	--	--	13	--	--
FEB							
12...	--	--	--	--	98	99	100
MAR							
07...	--	--	--	--	100	--	--
14...	--	--	--	--	100	--	--
19...	--	--	--	--	96	--	--
APR							
04...	--	--	--	--	98	99	100
08...	--	--	--	--	97	--	--
27...	--	--	--	--	86	97	100
MAY							
11...	25	43	88	100	--	--	--
12...	--	--	--	--	85	--	--
15...	--	--	--	--	89	--	--
25...	72	89	100	--	--	--	--
JUN							
04...	84	94	100	--	--	--	--
JUL							
11...	--	--	--	--	100	--	--
12...	--	--	--	--	97	99	100
AUG							
09...	--	--	--	--	99	--	--
10...	98	100	--	--	--	--	--
19...	--	--	--	--	92	--	--
23...	99	100	--	--	--	--	--
SEP							
13...	--	--	--	--	99	--	--
20...	94	95	98	100	--	--	--

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	801	1050	724	643	601	582	545	384	306	581	1360	667
2	786	1050	735	680	565	582	608	378	307	584	1370	761
3	795	1080	704	677	562	510	636	405	310	589	1380	750
4	812	1100	702	694	559	519	638	405	339	586	1380	732
5	810	1090	668	678	559	521	569	377	312	589	811	577
6	796	1120	661	658	574	617	558	373	282	589	765	540
7	805	1120	659	655	564	632	486	368	298	592	756	608
8	800	1210	645	649	678	635	542	363	316	589	1180	612
9	802	1130	653	661	648	642	551	366	321	594	930	612
10	805	1110	651	658	---	597	551	364	319	592	853	723
11	816	1090	652	624	---	581	555	376	320	1120	965	736
12	770	1080	659	604	767	578	543	377	316	646	999	1750
13	832	1090	647	536	615	565	526	361	349	644	774	1840
14	838	893	492	868	634	683	522	365	316	632	1000	1090
15	856	931	609	890	693	703	571	382	351	635	892	1050
16	958	931	613	619	698	684	568	383	353	633	821	877
17	1000	1130	621	536	641	541	512	377	355	603	775	863
18	989	1240	618	515	631	519	502	375	348	882	1650	863
19	996	686	629	531	634	522	512	335	348	893	908	807
20	967	681	625	588	581	497	560	335	347	890	1690	826
21	980	666	636	597	583	498	570	333	354	897	1300	778
22	1010	666	681	597	586	497	573	329	353	890	889	749
23	1020	721	632	600	611	491	573	321	355	900	1090	825
24	1030	726	626	570	611	506	571	316	355	805	823	829
25	1020	635	620	579	520	510	577	305	356	792	1280	834
26	1030	631	615	578	579	459	574	303	357	790	850	809
27	1010	629	614	578	588	508	412	303	356	793	814	812
28	1000	718	601	578	586	515	405	304	359	792	968	660
29	1050	680	635	578	587	505	408	305	364	796	574	732
30	818	730	647	595	---	522	408	304	550	795	652	742
31	1040	---	648	598	---	499	---	311	---	796	706	---
MEAN	905	920	643	626	609	555	538	351	342	726	1010	835

WTR YR 1984 MEAN 672 MAX 1840 MIN 282

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	16.0	5.0	5.0	10.0	15.0	19.0	26.0	27.0	27.0	26.0
2	20.0	18.0	10.0	5.0	5.0	9.0	15.0	20.0	26.0	27.0	27.0	26.0
3	20.0	18.0	10.0	5.0	5.0	8.0	15.0	20.0	26.0	27.0	27.0	25.0
4	20.0	18.0	10.0	5.0	5.0	8.0	15.0	22.0	26.0	27.0	27.0	26.0
5	20.0	18.0	10.0	3.0	5.0	7.0	15.0	22.0	26.0	27.0	27.0	26.0
6	20.0	18.0	4.0	6.0	5.0	7.0	12.0	22.0	26.0	27.0	27.0	26.0
7	20.0	18.0	4.0	5.0	5.0	7.0	15.0	22.0	26.0	27.0	27.0	26.0
8	20.0	18.0	4.0	5.0	5.0	7.0	17.0	22.0	27.0	27.0	27.0	26.0
9	20.0	16.0	7.0	5.0	5.0	7.0	17.0	23.0	27.0	27.0	27.0	26.0
10	20.0	16.0	7.0	5.0	---	7.0	16.0	23.0	27.0	27.0	27.0	27.0
11	20.0	17.0	3.0	5.0	---	7.0	16.0	23.0	27.0	27.0	28.0	27.0
12	20.0	17.0	6.0	5.0	5.0	9.0	17.0	23.0	27.0	27.0	28.0	27.0
13	20.0	16.0	3.0	5.0	5.0	9.0	17.0	23.0	27.0	27.0	27.0	27.0
14	20.0	16.0	5.0	4.0	5.0	11.0	18.0	23.0	27.0	27.0	28.0	27.0
15	20.0	16.0	5.0	4.0	6.0	11.0	18.0	23.0	27.0	27.0	28.0	27.0
16	20.0	16.0	7.0	4.0	6.0	13.0	18.0	23.0	27.0	27.0	28.0	27.0
17	18.0	16.0	5.0	4.0	6.0	13.0	18.0	23.0	27.0	27.0	28.0	27.0
18	18.0	16.0	5.0	4.0	6.0	15.0	18.0	23.0	27.0	27.0	28.0	27.0
19	20.0	16.0	5.0	3.0	7.0	17.0	19.0	23.0	27.0	27.0	28.0	27.0
20	18.0	16.0	6.0	4.0	6.0	15.0	19.0	23.0	27.0	27.0	28.0	27.0
21	18.0	16.0	5.0	5.0	8.0	15.0	19.0	23.0	27.0	27.0	28.0	27.0
22	18.0	16.0	5.0	5.0	7.0	15.0	19.0	23.0	27.0	27.0	28.0	27.0
23	18.0	16.0	5.0	5.0	8.0	15.0	19.0	23.0	27.0	27.0	27.0	27.0
24	18.0	16.0	6.0	5.0	9.0	15.0	19.0	23.0	27.0	27.0	27.0	27.0
25	18.0	16.0	5.0	5.0	10.0	15.0	19.0	24.0	27.0	27.0	27.0	27.0
26	18.0	16.0	6.0	5.0	8.0	17.0	19.0	24.0	27.0	27.0	28.0	27.0
27	18.0	16.0	6.0	5.0	7.0	15.0	19.0	24.0	27.0	27.0	28.0	26.0
28	18.0	16.0	5.0	5.0	7.0	15.0	19.0	24.0	27.0	27.0	28.0	26.0
29	18.0	16.0	5.0	5.0	7.0	15.0	19.0	24.0	27.0	27.0	27.0	26.0
30	18.0	16.0	6.0	5.0	---	15.0	19.0	25.0	27.0	27.0	27.0	26.0
31	18.0	---	5.0	5.0	---	15.0	---	26.0	---	27.0	27.0	---
MEAN	19.0	16.5	6.0	5.0	6.0	11.5	17.5	23.0	27.0	27.0	27.5	26.5

WTR YR 1984 MEAN 18.0 MAX 28.0 MIN 3.0

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	357	.81	309	.92	461	1100	938	2430	509	1280	1070	2760
2	250	.74	271	.80	516	1270	983	2080	496	1150	1140	2530
3	334	1.2	124	.37	865	2360	977	1880	725	1630	783	1570
4	326	1.1	152	.53	899	2620	1330	2510	572	1270	236	470
5	710	2.1	115	.43	1630	5190	1720	3290	540	1230	229	460
6	379	1.1	247	.93	920	2910	830	2190	321	739	2610	5280
7	360	1.1	181	.78	874	3040	825	2230	326	748	2030	4020
8	419	1.2	261	1.4	1150	4130	806	1990	1050	2300	5220	8780
9	408	1.3	376	1.5	1870	6160	583	1460	1800	4050	5500	8820
10	198	.64	202	.76	1300	3790	565	1440	10000	23200	2610	3660
11	376	.97	157	.64	1150	3260	902	2320	9000	20800	974	1260
12	210	.51	347	1.4	825	2220	693	1720	8600	19500	970	1360
13	363	.86	74	.30	405	1170	80	162	1930	4410	698	999
14	189	.45	74	.32	805	2650	745	296	1510	3350	4520	6250
15	255	.61	294	1.3	932	3720	772	519	1500	3260	4960	7460
16	252	.60	267	1.3	1590	5620	157	406	2440	5310	4470	7810
17	172	.41	48	1.7	1230	4320	140	476	1100	2470	1350	3650
18	368	.95	199	26	1310	4490	139	507	1310	2920	1310	3610
19	248	.67	905	220	1150	3820	878	2840	909	2100	1250	4590
20	184	.50	495	146	1040	3400	743	1880	796	1930	835	2910
21	265	.72	488	626	1290	3940	691	1610	820	1850	839	2850
22	333	.90	473	958	1380	2650	684	1380	734	1610	888	3260
23	221	.66	477	1040	1000	1060	754	1390	668	1510	731	3360
24	324	.96	473	1020	972	2650	470	902	626	1420	1120	5110
25	350	.95	486	1060	1060	3380	577	1080	789	1770	1090	4470
26	166	.49	480	1190	1020	3360	622	1310	1090	2380	228	893
27	152	.45	483	1240	1020	3410	603	1410	1130	2470	376	1380
28	100	.30	1050	2310	1050	3540	689	1490	1160	2590	195	753
29	256	.76	631	1360	1140	3630	537	1130	1040	2650	302	1460
30	705	2.1	471	1100	1020	2640	485	1170	---	---	261	1230
31	255	.76	---	---	1040	2600	479	1190	---	---	366	1680
TOTAL	---	26.87	---	12311.38	---	100100	---	46748	---	121897	---	104695

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENT.ATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
1	525	2150	1340	3450	2040	6550	228	899	2930	63	227	170
2	1750	6570	1370	3960	2200	8970	233	931	4010	76	135	64
3	3000	10600	1140	3480	2060	7900	209	807	3140	53	117	58
4	2780	7880	1140	3690	2570	10300	221	829	1560	27	5460	3100
5	1820	4390	1230	4080	2220	8510	250	952	1210	212	5580	859
6	1440	4630	1360	4590	2160	8220	273	872	1210	363	4750	551
7	884	2940	1180	4330	2210	8290	225	383	944	293	623	32
8	553	1780	1390	5630	1700	5970	273	307	13900	8260	621	5.2
9	346	1190	1350	5470	1750	6610	262	260	25600	67100	578	5.0
10	146	552	1380	5550	1770	6880	235	128	26100	77600	267	2.3
11	181	757	1580	6190	1800	7100	5840	3140	18300	30000	96	.62
12	178	731	1630	6560	1540	6150	2090	485	15500	18000	35800	71
13	438	1800	2080	7810	609	2420	2900	525	7590	10200	65900	133
14	533	907	2550	9360	804	3300	2700	386	12100	26700	18800	41
15	479	43	2200	8380	818	3400	2780	368	4670	5400	13700	31
16	497	46	2310	8670	443	1730	2660	302	1730	701	149	.35
17	306	25	2480	8840	500	2010	1680	552	8270	5360	30	.07
18	267	9.4	2740	9690	740	2900	4530	2120	6500	2980	10200	3060
19	532	14	2460	8500	860	3440	4200	3980	28500	12300	27000	22800
20	651	11	2300	7390	542	2170	3820	2940	55000	25200	21500	9870
21	599	7.0	2430	7870	748	2970	4440	2510	29100	11800	7300	3330
22	655	7.1	2310	7110	756	3100	4570	4180	6550	2480	1200	272
23	688	6.1	2140	6070	766	3290	3430	3770	28200	38500	1280	145
24	706	5.9	2050	6200	668	2920	178	78	30900	45800	1120	121
25	517	3.8	1790	4930	618	2700	75	6.7	37600	118000	1240	110
26	418	15	1900	5590	596	2490	52	3.5	28700	85200	4300	708
27	879	1580	1570	4750	573	2370	60	2.4	15800	31700	10700	4650
28	1550	3660	1520	4640	564	2310	64	2.1	25800	61800	14000	6540
29	1310	3260	1770	5780	605	2480	75	2.0	533	1450	15100	11700
30	1450	3760	1660	5330	347	1390	71	1.5	432	1080	14500	12500
31	---	---	1910	6290	---	---	84	1.8	362	564	---	---
TOTAL	---	59330.3	---	190180	---	138840	---	31724.0	---	689262	---	80929.54

TOTAL LOAD FOR YEAR: 1576044.09 TONS.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM
(Surveillance network)

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, Hydrologic Unit 13020203, in Sevilleta Grant, on right bank 0.2 mi below San Acacia diversion dam, 0.3 mi east of San Acacia, 2 mi downstream from Rio Salado, and at mile 1,472.6.

DRAINAGE AREA.--26,770 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, Co.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1936 to September 1958 (prior to construction of conveyance channel), October 1958 to September 1964 (flow in conveyance channel included), October 1964 to current year. Prior to October 1964 published as "08355000 Rio Grande at San Acacia" and records are not equivalent.

REVISED RECORDS.--WSP 1242: 1951. WSP 1732: 1958(M). WRD 1969: 1967.

GAGE.--Water-stage recorder. Datum of gage is 4,654.50 ft National Geodetic Vertical Datum of 1929. Aug. 19, 1965 to Aug. 15, 1967 at same site at datum 1.89 ft higher. Prior to Mar. 19, 1953, at several sites 0.1 mi upstream at different datums. Mar. 19, 1953 to Aug. 19, 1965, at site 0.4 mi downstream at datum 3.60 ft higher. Floodway is bypassed by Socorro main canal north and since Oct. 1958, by conveyance channel.

REMARKS.--Water-discharge records poor. Floodway is 1 of 3 channels (stations 08354500, 08354800) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, and Socorro main canal north see tabulation below. Normal plan is for floodway to carry flow when combined capacities of conveyence channel (about 2,000 ft^3/s) and Socorro main canal north (about 200 ft^3/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions above station for irrigation of about 760,000 acres; this includes Socorro main canal north which bypasses station and irrigates about 8,000 acres.

AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft^3/s, 863,000 acre-ft/yr, prior to construction of conveyance channel; does not include Socorro main canal north.

15 years (water years 1959-73), 911 ft^3/s, 660,000 acre-ft/yr, combined flow of floodway, conveyance channel and Socorro main canal north prior to closure of Cochiti Dam.

11 years (water years 1974-84), 1,238 ft^3/s, 896,900 acre-ft/yr, combined flow of floodway, conveyance channel, and Socorro main canal north since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft^3/s Aug. 5, 1936, gage height, 10.75 ft, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,500 ft^3/s at 0015 hours June 4, gage height, 5.84 ft; minimum daily, 0.06 ft^3/s Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	278	396	21	8.1	5.7	5.0	9.1	1510	5870	1060	8.0	15
2	471	413	20	7.2	5.2	6.0	7.8	1490	5900	1190	6.8	12
3	377	451	27	6.6	5.0	7.8	7.8	1390	6080	983	6.7	10
4	379	474	28	6.3	5.1	9.5	7.5	1470	5800	919	19	10
5	370	491	22	6.3	4.9	8.5	8.2	1420	5580	763	249	9.5
6	395	507	18	6.9	4.5	9.2	11	1410	5730	144	850	9.0
7	412	508	20	7.2	4.1	8.9	7.8	1670	5530	76	66	13
8	417	564	20	6.8	4.2	7.9	6.6	2170	5470	93	21	14
9	415	604	17	6.6	3.6	8.1	7.8	3040	4940	97	22	13
10	417	610	15	6.6	3.4	8.1	6.9	3280	4390	50	13	12
11	406	577	14	6.6	3.1	8.1	6.3	3240	3370	75	4.5	12
12	399	603	14	6.5	2.9	9.5	13	3250	2770	28	.60	9.6
13	358	638	22	20	2.9	11	621	4080	2500	32	185	9.1
14	370	638	33	69	1.4	11	676	3990	1540	40	127	11
15	360	666	22	50	2.9	12	1110	3960	1430	47	133	12
16	348	797	21	8.4	3.4	8.8	1400	4270	1170	56	129	13
17	352	999	20	10	.6	8.1	1950	4410	1030	75	135	13
18	345	1060	19	11	3.6	8.1	2000	4800	1140	79	123	41
19	335	765	19	12	4.2	8.5	2680	5290	1420	74	124	4.3
20	331	34	19	9.6	4.9	7.6	3160	5240	1500	66	116	12
21	337	32	19	8.6	4.3	8.5	3710	5310	1720	58	110	13
22	362	31	16	7.3	3.6	9.7	3910	5200	1340	61	99	11
23	349	27	31	6.7	3.6	14	3940	4900	1010	50	288	12
24	350	22	11	6.3	4.4	9.7	3860	5150	785	30	186	8.8
25	356	22	10	5.9	4.5	9.1	3630	5440	1040	20	456	7.2
26	354	23	10	5.9	4.3	9.1	3640	5090	1210	10	320	12
27	369	24	9.9	6.2	4.1	9.1	3370	5090	1560	9.0	100	10
28	358	22	9.5	5.9	4.2	9.7	2620	5110	1340	9.0	185	14
29	357	21	9.4	5.1	4.5	12	2560	5220	1130	9.0	30	9.8
30	353	21	8.5	5.6	---	11	1770	5290	992	8.0	25	18
31	365	---	8.0	6.0	---	11	---	5240	---	8.0	20	---
TOTAL	11445	12040	553.3	341.2	11 .1	284.6	46706.8	118420	85287	6219.0	4157.60	370.3
MEAN	369	401	17.8	11.0	4.00	9.18	1557	3820	2843	201	134	12.3
MAX	471	1060	33	69	5.7	14	3940	5440	6080	1190	850	41
MIN	278	21	8.0	5.1	1.4	5.0	6.3	1390	785	8.0	.60	4.3
AC-FT	22700	23880	1100	677	230	565	92640	234900	169200	12340	8250	734
(†)	28140	42030	70490	52630	48650	71040	144400	325700	270500	48680	44340	16010

CAL YR 1983 TOTAL 607886.30 MEAN 1665 MAX 5900 MIN 8.0 AC-FT 1206000 (†) MEAN 1879 AC-FT 1361000
WTR YR 1984 TOTAL 285940.90 MEAN 781 MAX 6080 MIN .60 AC-FT 567200 (†) MEAN 1601 AC-FT 1163000

(†) COMBINED FLOW, IN ACRE-FT, AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY, CONVEYANCE CHANNEL, AND SOCORRO MAIN CANAL NORTH.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-56, 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July to December 1937, March 1939 to September 1956, October 1964 to current year.
WATER TEMPERATURES: October 1947 to August 1956, January 1959 to current year.
SUSPENDED-SEDIMENT DISCHARGES: July 1946 to June 1956, January 1959 to current year.

REMARKS.--Additional sediment total discharge determinations were made biweekly when needed. When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia NM or 08354900 Rio Grande Floodway at San Acacia NM, samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,700 microsiemens July 14, 1940; minimum daily, 236 microsiemens May 17, 1942.
WATER TEMPERATURES: Maximum daily, 34.5°C July 13, 1971; minimum daily (1947-56, 1959-62, 1964-78), 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 223,000 mg/L Aug. 11 1946; minimum daily mean, no flow on many days of most years.
SEDIMENT LOADS: Maximum daily, 1,760,000 tons Aug. 12, 1955, minimum daily, 0 tons on many days of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,780 microsiemens Aug. 20; minimum daily, 297 microsiemens June 7.
WATER TEMPERATURES: Maximum daily, 28.0°C on several days during Aug.; minimum daily, 3.0°C Dec. 11, 13, Jan. 19.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 72,600 mg/L Aug. 20; minimum daily mean, 33 mg/L Jan. 29.
SEDIMENT LOADS: Maximum daily, 273,000 tons Aug. 6; minimum daily, .45 tons Jan. 29.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
NOV 04...	1000	456	600	629	8.3	7.9	16.0	14.0	8.2	50	200

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
NOV 04...	17	61	11	57	2	5.3	220	180	110	29	.60

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 04...	26	410	.70	.69	.080	.32	1.1	1.90	.400	14

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV 04...	1000	9	6	140	<1	<1	30	<10	51	<1

DATE	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 04...	10	26	<1	.1	<.1	1	<1	210	5

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
NOV							
04...	1000	<2.0	2.7	240	1	<1	1

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
NOV							
04...	<10	1	700	<10	75	<.01	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
NOV									
04...	1000	18	<60	9.1	66	7.8	57	.07	3.4

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
04...	1000	K1100	3300

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
13...	1000	370	14.0	2560	2560	31	38
NOV							
04...	1000	456	14.0	3380	4160	10	11
15...	0930	683	8.5	1440	2660	14	18
FEB							
12...	1430	5.2	5.0	3100	44	72	88
MAR							
07...	1600	9.8	7.0	1690	45	--	--
09...	1600	8.1	7.0	3930	86	--	--
14...	0745	11	12.0	6270	186	80	92
APR							
04...	1600	7.5	17.0	4050	82	--	--
17...	1030	2040	20.0	1550	8540	10	12
25...	1600	4070	20.0	1610	17700	--	--
MAY							
03...	1600	1120	20.0	1080	3270	--	--
11...	1100	3280	18.0	1850	16400	20	23
13...	1600	5150	23.0	2350	32700	--	--
21...	1030	5420	18.0	2330	34100	34	38
JUN							
04...	1600	5450	26.0	3520	51800	--	--
05...	1130	5550	18.0	3340	50000	40	47
20...	1215	1480	23.0	627	2510	--	--
JUL							
11...	1600	75	27.0	15500	3140	63	78
AUG							
03...	1600	249	27.0	113000	76000	--	--
08...	1000	39	20.0	65800	6930	47	61
19...	1600	124	28.0	38300	12800	--	--
23...	1600	3660	27.0	23200	229000	--	--

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
13...	48	85	98	100	--	--
NOV						
04...	22	67	88	100	--	--
15...	29	76	91	99	100	--
FEB						
12...	99	--	--	--	--	100
MAR						
07...	--	--	--	--	--	97
09...	--	--	--	--	--	100
14...	98	--	--	--	--	100
APR						
04...	--	--	--	--	--	95
17...	20	55	86	99	100	--
25...	--	--	--	--	--	71
MAY						
03...	--	--	--	--	--	82
11...	32	46	70	95	100	--
13...	--	--	--	--	--	85
21...	54	78	91	100	--	--
JUN						
04...	--	--	--	--	--	75
05...	62	84	93	100	--	--
20...	--	64	91	100	--	--
JUL						
11...	98	--	--	--	--	100
AUG						
05...	--	--	--	--	--	97
08...	80	96	99	100	--	--
19...	--	--	--	--	--	94
23...	--	--	--	--	--	100

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
OCT							
13...	1000	370	2560	2560	1	9	79
NOV							
04...	1000	456	3380	4160	9	23	66
15...	0930	683	1440	2660	15	26	71
MAR							
14...	0745	11	6270	186	0	1	77
APR							
17...	1030	2040	1550	8540	12	70	100
MAY							
11...	1100	3280	1850	16400	3	22	83
21...	1030	5420	2330	34100	8	65	100
JUN							
05...	1130	5550	3340	50000	10	65	96
20...	1215	1480	627	2510	5	38	94
AUG							
08...	1000	39	65800	6930	18	39	81

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)
OCT						
13...	98	100	--	--	--	--
NOV						
04...	90	--	97	98	99	100
15...	97	100	--	--	--	--
MAR						
14...	99	100	--	--	--	--
APR						
17...	--	--	--	--	--	--
MAY						
11...	100	--	--	--	--	--
21...	--	--	--	--	--	--
JUN						
05...	100	--	--	--	--	--
20...	100	--	--	--	--	--
AUG						
08...	97	100	--	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SEDIMENT, DISCH, SUSP. + BED MATERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOCITY, MEAN (FPS) (00055)
OCT									
13...	1000	370	14.0	2560	2560	4090	144	.76	3.40
NOV									
04...	1000	456	14.0	3380	4160	5200	135	1.1	3.10
15...	0930	683	8.5	1440	2660	3720	135	1.3	4.00
MAR									
14...	0745	11	12.0	6270	186	204	32.0	.32	1.10
APR									
17...	1030	2040	20.0	1550	8540	10900	200	2.6	3.80
MAY									
11...	1100	3280	18.0	1850	16400	22100	200	3.7	4.40
21...	1030	5420	18.0	2330	34100	39200	200	5.2	5.20
JUN									
05...	1130	5550	18.0	3340	50000	56300	202	4.9	5.60
20...	1215	1480	23.0	627	2510	3380	192	2.7	2.90
AUG									
08...	1000	39	20.0	65800	6930	6680	62.0	.96	.65

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	926	756	628	569	703	592	518	402	305	570	1680	636
2	771	729	629	591	674	560	578	402	304	562	1760	637
3	1130	726	604	595	674	551	619	397	306	567	1760	637
4	1020	709	600	601	666	552	620	394	335	564	1760	657
5	852	833	571	618	667	547	570	367	309	569	839	642
6	729	826	563	596	666	659	561	362	302	568	772	722
7	685	828	560	604	697	667	468	390	297	571	755	746
8	635	671	561	603	674	659	508	356	311	568	1120	765
9	628	633	562	616	701	666	515	357	313	572	1180	753
10	652	626	572	612	---	636	515	353	314	571	706	819
11	679	626	573	633	---	623	520	355	314	1140	926	813
12	589	644	573	637	709	619	505	353	343	617	942	826
13	620	615	573	492	628	595	512	328	347	660	791	787
14	634	604	592	583	612	715	509	366	347	653	925	780
15	560	609	564	594	644	722	482	369	348	660	870	771
16	646	742	559	596	655	693	476	357	321	654	834	738
17	677	734	562	522	656	579	465	369	321	662	908	736
18	661	643	560	504	657	563	469	358	360	865	1730	1570
19	667	620	557	527	612	560	404	329	354	908	944	1610
20	782	613	559	598	592	547	406	334	367	912	1780	1100
21	791	614	559	590	590	548	411	336	354	924	1170	1100
22	739	613	591	591	589	546	405	332	354	920	829	862
23	710	617	565	593	586	507	409	326	355	928	1010	866
24	669	623	559	599	585	543	405	324	360	847	857	850
25	704	710	559	642	591	545	394	302	362	832	1260	848
26	681	722	541	641	581	483	388	299	359	849	800	679
27	648	717	541	644	583	485	383	300	363	849	811	665
28	696	640	539	608	580	481	389	301	359	825	878	733
29	694	656	560	604	587	488	382	301	357	817	688	707
30	912	632	561	689	---	469	378	300	576	818	590	690
31	741	---	576	697	---	482	---	301	---	832	643	---
MEAN	727	678	570	600	636	577	472	346	344	737	1050	825

WTR YR 1984 MEAN 630 MAX 1780 MIN 297

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	18.0	16.0	5.0	5.0	10.0	17.0	20.0	26.0	27.0	27.0	26.0
2	20.0	18.0	10.0	5.0	5.0	9.0	17.0	20.0	26.0	27.0	27.0	26.0
3	20.0	18.0	10.0	5.0	5.0	8.0	17.0	20.0	26.0	27.0	27.0	26.0
4	20.0	18.0	10.0	5.0	5.0	8.0	17.0	22.0	26.0	27.0	27.0	26.0
5	20.0	18.0	10.0	6.0	5.0	9.0	17.0	22.0	26.0	27.0	27.0	26.0
6	20.0	18.0	4.0	6.0	5.0	7.0	11.0	22.0	26.0	27.0	27.0	26.0
7	20.0	18.0	4.0	6.0	5.0	7.0	18.0	22.0	26.0	27.0	27.0	26.0
8	20.0	18.0	4.0	5.0	5.0	7.0	17.0	24.0	27.0	27.0	27.0	26.0
9	20.0	16.0	7.0	5.0	5.0	7.0	18.0	23.0	27.0	27.0	27.0	26.0
10	20.0	16.0	7.0	5.0	---	7.0	18.0	23.0	27.0	27.0	27.0	27.0
11	20.0	17.0	3.0	5.0	---	7.0	18.0	23.0	27.0	27.0	28.0	27.0
12	20.0	17.0	6.0	5.0	5.0	9.0	18.0	23.0	27.0	27.0	28.0	27.0
13	20.0	16.0	3.0	5.0	5.0	9.0	18.0	23.0	27.0	27.0	27.0	27.0
14	20.0	16.0	5.0	4.0	5.0	11.0	18.0	23.0	27.0	27.0	28.0	27.0
15	20.0	16.0	5.0	4.0	6.0	11.0	19.0	23.0	27.0	27.0	28.0	27.0
16	20.0	16.0	7.0	4.0	6.0	13.0	19.0	23.0	27.0	27.0	28.0	27.0
17	18.0	16.0	5.0	4.0	6.0	13.0	20.0	23.0	27.0	27.0	28.0	27.0
18	18.0	16.0	5.0	4.0	6.0	15.0	20.0	23.0	27.0	27.0	28.0	27.0
19	18.0	16.0	5.0	3.0	7.0	17.0	20.0	23.0	27.0	27.0	28.0	27.0
20	18.0	16.0	6.0	4.0	6.0	15.0	20.0	23.0	27.0	27.0	28.0	27.0
21	18.0	16.0	5.0	5.0	8.0	15.0	20.0	23.0	27.0	27.0	28.0	27.0
22	18.0	16.0	5.0	5.0	7.0	15.0	20.0	23.0	27.0	27.0	28.0	27.0
23	18.0	16.0	5.0	5.0	8.0	15.0	20.0	23.0	27.0	27.0	27.0	27.0
24	18.0	16.0	6.0	5.0	9.0	15.0	20.0	23.0	27.0	27.0	27.0	27.0
25	18.0	16.0	5.0	5.0	10.0	15.0	20.0	24.0	27.0	27.0	27.0	27.0
26	18.0	16.0	6.0	5.0	8.0	17.0	20.0	24.0	27.0	27.0	28.0	27.0
27	18.0	16.0	6.0	5.0	7.0	17.0	20.0	24.0	27.0	27.0	28.0	26.0
28	18.0	16.0	5.0	5.0	7.0	17.0	20.0	24.0	27.0	27.0	28.0	26.0
29	18.0	16.0	5.0	5.0	7.0	17.0	20.0	24.0	27.0	27.0	27.0	26.0
30	18.0	16.0	6.0	5.0	---	17.0	20.0	25.0	27.0	27.0	27.0	26.0
31	18.0	---	5.0	5.0	---	17.0	---	26.0	---	27.0	27.0	---
MEAN	19.0	16.5	6.0	5.0	6.0	12.0	18.5	23.0	27.0	27.0	27.5	26.5

WTR YR 1984 MEAN 18.0 MAX 28.0 MIN 3.0

BEST COPY AVAILABLE

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10800	8110	947	1010	293	17	101	2.2	82	1.3	103	1.4
2	44600	63900	1670	1860	294	16	84	1.6	62	.87	155	2.5
3	65000	66200	2430	2960	781	57	85	1.5	60	.81	161	3.4
4	42300	43300	2790	3570	908	69	100	1.7	62	.85	153	3.9
5	18000	18000	2300	3050	595	35	75	1.3	68	.90	167	3.8
6	10000	10700	2020	2770	405	20	63	1.2	54	.66	1500	37
7	6160	6850	2110	2890	399	22	72	1.4	69	.76	1800	43
8	5370	6050	2330	3550	345	19	67	1.2	998	11	3570	76
9	3450	3870	3380	5510	354	16	72	1.3	1090	11	4200	92
10	3700	4170	2980	4910	281	11	77	1.4	1130	10	2060	45
11	3390	3720	2390	3720	334	13	111	2.0	3220	27	1000	22
12	2940	3170	2250	3660	310	12	110	1.9	3080	24	1420	36
13	2510	2430	2180	3760	381	23	588	32	1080	8.5	1450	43
14	2250	2250	2170	3740	1330	119	1010	188	1680	6.4	4720	140
15	1310	1270	1750	3150	975	58	1010	136	3150	25	3610	117
16	1570	1480	2010	4330	433	25	1030	23	3290	30	2960	70
17	1180	1120	2220	5990	260	14	757	20	2490	24	793	17
18	1040	969	1290	3690	235	12	460	14	2870	28	618	14
19	1600	1450	372	768	183	9.4	171	5.5	1980	22	650	15
20	800	715	318	29	340	17	94	2.4	735	9.7	475	9.7
21	735	669	321	28	287	15	63	1.5	511	5.9	460	11
22	1310	1280	323	27	193	8.3	54	1.1	475	4.6	465	12
23	1350	1270	326	24	487	77	57	1.0	459	4.5	760	29
24	1420	1340	335	20	117	3.5	50	.85	460	5.5	340	8.9
25	1590	1530	531	32	125	3.4	55	.88	477	5.8	275	6.8
26	743	710	640	40	138	3.7	66	1.1	258	3.0	679	17
27	1110	1110	645	42	155	4.1	63	1.1	187	2.1	805	20
28	1200	1160	434	26	145	3.7	50	.80	184	2.1	670	18
29	1040	1000	276	16	112	2.8	33	.45	114	1.4	622	20
30	344	328	290	16	101	2.3	69	1.0	---	---	610	18
31	628	619	---	---	146	3.2	91	1.5	---	---	500	15
TOTAL	---	260740	---	65188	---	711.4	---	450.88	---	277.65	---	967.4

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1840	45	1300	5300	1890	30000	190	544	280	6.0	530	21
2	3050	64	1310	5270	1810	28800	214	688	260	4.8	496	16
3	2750	58	1150	4320	1830	30000	209	555	245	4.4	484	13
4	3780	77	1120	4450	3640	57000	215	533	7000	359	458	12
5	1830	41	1100	4220	2620	39500	267	550	57900	39200	473	12
6	1980	59	1730	6590	2040	31600	291	113	56400	273000	520	13
7	876	18	2010	9060	1800	26900	279	57	9970	1780	530	19
8	875	16	1790	10500	1490	22000	238	60	6700	769	301	11
9	550	12	1590	13100	1370	18300	258	68	12700	3020	287	10
10	560	10	1660	14700	1400	16600	276	37	14000	491	288	9.3
11	575	9.8	1610	14100	1450	13200	13000	2630	10900	132	288	9.3
12	1210	42	1550	13600	1390	10400	2970	225	11000	18	370	9.6
13	2860	5310	2300	25300	825	5570	2310	200	11600	13600	209	5.1
14	2660	4860	2750	29600	900	3740	2280	246	8610	2950	171	5.1
15	2320	6950	2350	25100	900	3470	2260	287	2100	754	181	5.9
16	2140	8090	2480	28600	1580	4990	2210	334	2100	731	160	5.6
17	2270	12000	2270	27000	1700	4730	2800	567	14700	5360	152	5.3
18	2750	14900	2600	33700	860	2650	7400	1580	9170	3050	16000	2540
19	2510	18200	2530	36100	525	2010	7450	1490	37500	12600	7420	86
20	2380	20300	2400	34000	545	2210	7500	1340	72600	22700	24300	787
21	2530	25300	2700	38700	615	2860	7790	1220	14900	4430	6920	243
22	2400	25300	2850	40000	660	2390	7790	1280	7500	2000	4820	143
23	2320	24700	1810	23900	661	1800	6940	937	33000	42300	4490	145
24	2040	21300	1730	24100	828	1750	451	37	35000	24300	5240	125
25	1510	14800	1850	27200	645	1810	610	33	44100	54300	4320	84
26	1510	14800	1770	24300	379	1240	325	8.8	25200	21800	4170	135
27	1510	13700	1800	24700	330	1390	255	6.2	9030	2440	4700	127
28	1550	11000	1740	24000	400	1450	199	4.8	13000	6490	3660	138
29	1510	10400	1680	23700	475	1450	377	9.2	2100	170	2880	76
30	1330	6360	1750	25000	199	533	263	5.7	2800	189	3490	170
31	---	---	1670	23600	---	---	255	5.5	1500	81	---	---
TOTAL	---	258721.8	---	643810	---	370343	---	15651.2	---	539029.2	---	4981.2

TOTAL LOAD FOR YEAR: 2160871.73 TONS.

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°41'15", long 106°59'40", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 34, on right bank 0.4 mi northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi southwest of former site of San Marcial, 3.5 mi downstream from railroad bridge near Tiffany siding, and 51 mi downstream from heading at San Acacia.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1959, October 1969 to current year. Prior to October 1964 monthly discharge only published with record for Rio Grande at San Marcial (station 08358500).

GAGE.--Water-stage recorder. Datum of gage is 4,434.00 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft higher.

REMARKS.--Water-discharge records good. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft^3/s. Conveyance channel is 1 of 2 channels (station 08358400) carrying flow in valley cross section. For combined monthly flow in acre-ft of this channel and floodway see tabulation below daily table for station 08358400.

EXTREMES FOR PERIOD OF RECORD (SINCE 1954).--Maximum daily discharge, 2,200 ft^3/s May 14, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	170	906	1020	981	1010	1470	1200	1420	1640	150	333
2	225	179	923	984	943	947	1480	1280	1530	1660	120	285
3	219	193	965	870	915	876	1490	1300	1610	1620	105	267
4	187	190	1000	833	895	858	1410	1330	1630	1580	107	255
5	176	245	1100	834	892	866	1190	1340	1610	1560	127	242
6	169	218	1110	946	902	844	1170	1360	1600	1510	258	216
7	165	227	1150	1090	909	858	1320	1360	1600	1210	312	204
8	166	230	1210	1080	889	790	1300	1380	1540	908	318	200
9	170	236	1190	1020	886	730	1280	1400	1560	750	253	230
10	171	232	1140	1060	902	710	1300	1410	1620	584	991	221
11	189	237	1070	1050	906	700	1360	1420	1630	484	620	195
12	200	235	1040	1060	922	680	1360	1450	1590	450	516	191
13	203	225	1000	1030	899	650	1330	1450	1580	300	397	186
14	195	230	1120	657	904	640	1280	1420	1550	280	481	181
15	173	203	1160	500	888	638	510	1450	1600	270	603	180
16	196	161	1270	732	885	718	334	1460	1580	270	257	178
17	226	158	1230	1210	885	884	300	1450	1630	281	253	177
18	198	157	1230	1300	906	1050	285	1430	1620	378	289	188
19	171	205	1200	1320	908	1190	308	1410	1650	405	264	308
20	167	586	1170	1130	968	1270	333	1410	1660	485	279	344
21	178	655	1160	1030	944	1230	363	1380	1690	405	230	252
22	174	645	971	962	893	1310	368	1390	1660	331	274	270
23	176	774	633	870	888	1350	370	1310	1710	516	338	245
24	193	839	738	838	920	1380	356	1290	1750	368	339	240
25	216	809	1100	847	888	1390	391	1310	1780	255	900	233
26	216	854	1140	851	897	1400	488	1290	1740	237	1100	236
27	210	934	1160	929	879	1410	520	1330	1730	245	690	330
28	213	920	1190	940	891	1360	921	1370	1700	231	707	278
29	206	833	1210	882	930	1430	1070	1420	1710	223	843	375
30	215	856	1090	926	---	1450	1130	1410	1690	230	863	430
31	200	---	1020	976	---	1460	---	1440	---	190	662	---
TOTAL	5974	12636	33596	29777	26315	32079	26787	42650	48970	19856	13646	7470
MEAN	193	421	1084	961	907	1035	893	1376	1632	641	440	249
MAX	226	934	1270	1320	981	1460	1490	1460	1780	1660	1100	430
MIN	165	157	633	500	879	638	285	1200	1420	190	105	177
AC-FT	11850	25060	66640	59060	52200	63630	53130	84600	97130	39380	27070	14820

CAL YR 1983 TOTAL 99314.1 MEAN 272 MAX 1270 MIN 1.7 AC-FT 197000
WTR YR 1984 TOTAL 299756.0 MEAN 819 MAX 1780 MIN 105 AC-FT 594600

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1954 to current year.
WATER TEMPERATURES: March 1954 to current year.
SUSPENDED-SEDIMENT DISCHARGES: March 1954 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,860 microsiemens Oct. 25, 1956; minimum daily, 298 microsiemens May 25, 1984.
WATER TEMPERATURES: Maximum daily, 36.0°C July 17, Aug. 3, 1982; minimum daily, 0.0°C on many days during December and January of most years.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 144,000 mg/L Sept. 19, 1971; minimum daily mean, no flow on many days during most years.
SEDIMENT LOADS: Maximum daily, 638,000 tons Aug. 28 1972; minimum daily, 0 tons on many days during most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,720 microsiemens Sept. 19; minimum daily, 298 microsiemens May 25.
WATER TEMPERATURES: Maximum daily, 29.0°C Oct. 20, Aug. 4; minimum daily, 4.0°C Jan. 13, 14.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 63,300 mg/L Aug. 25, Sept. 12; minimum daily mean, 68 mg/L Jan. 15.
SEDIMENT LOADS: Maximum daily, 152,000 tons Aug. 25; minimum daily, 41 tons Aug. 3.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)
NOV 02...	1100	189	1000	993	8.2	8.1	19.0	14.5	28	8.7	260
JAN 04...	1200	818	--	--	8.1	--	11.5	6.5	--	9.7	--
MAR 15...	1130	610	690	715	8.2	8.0	23.0	13.0	1900	8.7	190
MAY 09...	1130	1430	425	436	8.0	7.8	24.5	18.0	160	7.7	140
JUL 11...	0945	505	--	--	8.1	--	27.0	22.0	--	7.1	--
SEP 19...	1230	299	1500	1680	7.8	7.5	29.5	20.5	30000	6.6	400

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
NOV 02...	66	80	15	130	4	5.5	240	.000	200	190
JAN 04...	--	--	--	--	--	--	--	--	--	--
MAR 15...	12	55	12	76	3	5.0	190	12	180	140
MAY 09...	17	43	7.7	35	1	3.6	150	.000	120	74
JUL 11...	--	--	--	--	--	--	--	--	--	--
SEP 19...	220	120	24	190	4	6.8	220	.000	180	600

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 02...	100	.50	26	681	670	<.10	.050	.130	.050	<.01
JAN 04...	--	--	--	--	--	--	--	--	--	--
MAR 15...	43	.60	23	473	470	.69	.270	1.40	.130	<.01
MAY 09...	19	.40	20	287	280	.40	.060	.150	.090	<.01
JUL 11...	--	--	--	--	--	--	--	--	--	--
SEP 19...	60	.90	13	1190	1100	.83	.170	18.0	<.010	<.01

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
NOV 02...	1100	<10	5	74	<.5	<1	<1	<3	1	5	<1
MAR 15...	1130	70	5	56	1.0	<1	<1	<3	7	56	10
MAY 09...	1130	20	3	59	<.5	<1	1	<3	2	13	<1
SEP 19...	1230	20	<1	69	<1.0	<1	<1	<3	4	6	4

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 02...	120	3	<.1	4	<10	2	<1	<1	900	<6	14
MAR 15...	78	3	<.1	4	<10	1	6	<1	620	<6	16
MAY 09...	43	2	<.1	4	<10	4	<1	<1	380	<6	<3
SEP 19...	77	<1	<.1	<1	20	2	3	<1	1500	<6	5

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
NOV 02...	1100	<2.0	2.8	270	2	<1	1

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
NOV 02...	<10	<1	650	<10	180	<.01	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAI (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
NOV 02...	1100	<15	2.1	<8.6	2.9	<7.4	2.5	.02	1.5
MAY 09...	1130	<6.8	5.1	<3.6	3.3	<3.1	2.8	.09	2.0

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
MAY 09...	1130	--	--	--	--	--	--	--	--	--
SEP 19...	1230	<.1	<.010	<.1	<.010	<.010	<.010	.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAY 09...	--	--	--	--	--	--	--	--	--
SEP 19...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAY 09...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 19...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 02...	1100	200	1500
JAN 04...	1200	K130	400
MAR 15...	1130	K170	2400
MAY 09...	1130	K100	540
JUL 11...	0945	K180	360
SEP 19...	1230	K140	K140

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
NOV							
02...	1100	189	14.5	254	130	--	--
JAN							
04...	1200	818	6.5	1520	3360	--	--
FEB							
09...	1805	878	12.0	7050	16700	60	73
16...	0710	871	10.0	2590	6090	48	62
MAR							
08...	1745	766	17.0	1970	4070	--	--
15...	1130	610	13.0	3340	5500	50	61
22...	1910	1280	17.0	3410	11800	56	66
APR							
04...	1840	1200	21.0	1920	6220	--	--
17...	1845	300	19.0	6980	5650	36	45
MAY							
09...	1130	1430	18.0	1960	7570	11	13
09...	1825	1400	18.0	1600	6050	--	--
17...	1510	1440	23.0	1640	6380	--	--
19...	1800	1420	24.0	1650	6330	--	--
31...	1810	1440	22.0	1810	7040	29	34
JUN							
14...	1815	1460	23.0	773	3050	--	--
JUL							
11...	0945	505	22.0	478	652	--	--
21...	0745	540	24.0	6580	9590	62	74
AUG							
07...	0740	500	23.0	8760	11800	49	61
15...	0745	950	23.0	9510	24400	64	76
21...	1915	E230	25.0	9390	--	--	--
23...	1840	718	24.0	61300	119000	--	--
25...	1425	915	26.0	55600	137000	56	70
SEP							
19...	1230	299	20.5	57300	46300	60	71

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)
NOV							
02...	--	33	38	98	100	--	--
JAN							
04...	--	33	64	97	100	--	--
FEB							
09...	94	--	--	--	--	99	100
16...	80	91	98	100	--	--	--
MAR							
08...	--	--	--	--	--	94	--
15...	77	81	86	100	--	--	--
22...	86	--	--	--	--	98	100
APR							
04...	--	--	--	--	--	98	--
17...	68	94	98	100	--	--	--
MAY							
09...	24	61	87	100	--	--	--
09...	--	--	--	--	--	81	--
17...	--	--	--	--	--	95	--
19...	--	--	--	--	--	95	--
31...	53	89	99	100	--	--	--
JUN							
14...	--	--	--	--	--	99	100
JUL							
11...	--	27	69	98	100	--	--
21...	96	--	--	--	--	100	--
AUG							
07...	79	98	100	--	--	--	--
15...	93	--	--	--	--	99	100
21...	--	--	--	--	--	99	--
23...	--	--	--	--	--	99	--
25...	92	99	100	--	--	--	--
SEP							
19...	92	98	99	100	--	--	--

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
NOV 02...	1100	189	254	130	2	11	89
JAN 04...	1200	818	1520	3360	1	14	79
MAR 15...	1130	610	3340	5500	1	7	94
MAY 09...	1130	1430	1960	7570	2	15	93
JUL 11...	0945	505	478	652	1	7	60
SEP 19...	1230	299	57300	46300	1	17	93

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
NOV 02...	96	--	97	97	98	99	100
JAN 04...	99	100	--	--	--	--	--
MAR 15...	100	--	--	--	--	--	--
MAY 09...	100	--	--	--	--	--	--
JUL 11...	92	--	96	98	99	100	--
SEP 19...	100	--	--	--	--	--	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
NOV 02...	1100	189	14.5	254	130	330	31.0	2.3	2.70
JAN 04...	1200	818	6.5	1520	3360	4620	48.0	4.2	4.10
MAR 15...	1130	610	13.0	3340	5500	6770	48.0	3.1	4.10
MAY 09...	1130	1430	18.0	1960	7570	8220	53.0	5.4	5.00
JUL 11...	0945	505	22.0	478	652	916	50.0	4.1	2.40
SEP 19...	1230	299	20.5	57300	46300	45500	46.0	1.7	3.80

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	---	719	647	682	654	541	401	316	470	847	759
2	1110	1190	718	647	667	653	649	439	309	471	840	755
3	1110	---	715	652	667	687	695	440	430	467	842	750
4	1110	---	714	659	665	607	674	440	426	466	841	755
5	1080	957	662	---	671	676	674	410	424	468	744	971
6	1070	1040	655	---	670	672	530	410	450	757	732	976
7	1080	1070	656	---	768	694	569	408	436	789	737	973
8	1070	1070	---	---	807	684	573	406	428	821	741	975
9	1040	756	---	---	821	684	575	336	351	803	751	975
10	1040	723	666	920	819	680	573	411	367	798	740	974
11	910	718	654	936	819	560	682	427	433	799	743	1120
12	1040	713	581	941	827	536	692	328	385	784	740	1230
13	1070	718	611	944	638	532	698	409	424	799	746	981
14	1060	718	616	942	668	528	699	416	388	798	755	953
15	1080	720	618	941	681	561	---	396	380	886	949	953
16	1070	726	621	572	682	538	793	394	374	887	966	948
17	1080	743	616	650	687	590	512	394	375	900	975	957
18	1080	731	640	665	684	599	490	394	373	897	970	949
19	1070	730	643	717	689	597	750	393	454	903	974	1050
20	1110	723	643	675	687	602	450	394	467	904	977	985
21	1130	723	644	680	691	598	501	395	468	906	982	968
22	1120	703	645	678	688	600	503	339	469	907	816	808
23	1130	701	644	683	691	599	506	388	472	906	1220	809
24	1120	693	642	681	688	548	507	394	451	901	1250	791
25	1130	697	643	682	690	598	504	298	471	904	1260	794
26	1160	698	643	676	658	543	502	307	471	895	793	784
27	1140	703	651	688	656	543	767	311	474	899	1230	792
28	---	706	652	689	651	539	529	315	473	900	1250	785
29	---	716	647	689	654	541	508	313	471	906	811	791
30	---	716	651	685	---	541	504	310	472	847	758	785
31	---	---	645	685	---	541	---	313	---	845	757	---
MEAN	1090	782	650	732	702	598	591	378	423	796	895	903

WTR YR 1984 MEAN 707 MAX 1260 MIN 298

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.0	---	18.0	6.0	9.0	15.0	19.0	18.0	24.0	27.0	25.0	26.0
2	27.0	14.5	18.0	5.0	8.0	14.5	18.0	17.0	23.0	28.0	26.0	25.0
3	27.0	---	18.0	8.0	8.0	15.0	20.0	18.0	25.0	27.0	24.0	25.0
4	25.0	---	17.0	5.0	10.0	17.0	21.0	18.0	24.0	26.0	29.0	27.0
5	26.0	25.0	17.5	---	19.0	17.5	20.0	19.0	24.0	25.0	23.0	26.0
6	27.0	25.0	16.0	---	11.0	18.0	18.0	18.5	23.0	25.0	24.0	25.0
7	27.0	24.0	20.0	---	10.0	18.0	17.0	19.0	24.0	26.0	23.0	26.0
8	28.0	25.0	---	---	12.0	17.0	18.0	16.0	24.5	25.0	25.0	26.0
9	27.0	23.0	---	---	12.0	18.5	18.0	18.0	24.0	26.0	25.0	27.0
10	27.0	23.0	19.0	7.0	10.0	17.0	18.0	19.5	26.0	25.0	25.0	25.0
11	28.0	23.0	20.0	7.5	10.0	20.0	18.0	18.0	24.0	24.0	25.0	27.0
12	29.0	24.0	6.0	7.0	12.0	21.0	17.0	18.5	23.0	24.0	24.0	26.0
13	28.0	20.0	5.0	4.0	15.0	18.0	18.0	19.0	20.0	25.0	24.0	25.0
14	27.0	20.0	7.0	4.0	14.0	17.0	19.0	23.0	23.0	24.0	25.0	27.0
15	27.0	23.0	9.0	7.0	10.0	17.5	---	23.5	24.0	25.0	23.0	26.0
16	28.0	22.0	8.0	7.0	10.0	16.0	17.0	23.0	23.0	24.0	23.0	27.0
17	27.0	19.0	8.0	7.0	12.0	17.0	19.0	23.0	23.0	24.0	24.0	28.0
18	27.0	22.0	6.0	6.0	14.0	17.0	19.5	23.0	24.0	24.0	24.0	26.0
19	28.0	23.0	8.0	5.0	14.0	15.0	18.0	24.0	26.0	23.0	25.0	27.0
20	29.0	21.0	5.0	7.0	16.0	15.0	16.0	23.0	27.0	26.0	26.0	27.0
21	27.0	22.0	6.0	8.0	14.0	17.0	17.0	23.0	26.0	24.0	25.0	28.0
22	26.0	17.0	5.0	7.0	17.0	17.0	16.0	23.0	26.0	24.0	25.0	27.0
23	27.0	18.0	5.0	7.0	15.0	18.0	17.0	24.5	26.0	24.0	24.0	27.0
24	26.0	19.0	6.0	7.0	17.0	17.0	18.0	27.0	27.0	23.0	26.0	25.0
25	28.0	18.0	5.0	9.5	15.0	19.0	16.0	23.0	25.0	24.0	26.0	27.0
26	28.0	18.5	6.5	7.0	14.0	16.0	19.0	23.0	27.0	24.0	24.0	26.0
27	27.0	18.0	5.0	9.0	14.0	17.0	16.0	23.0	28.0	23.0	25.0	27.0
28	---	19.0	7.0	8.0	16.0	18.0	16.0	24.0	27.0	25.0	24.0	27.0
29	---	18.0	7.0	8.0	17.0	18.0	14.0	22.0	26.0	24.0	26.0	28.0
30	---	17.0	5.0	8.5	---	18.0	13.0	22.0	26.0	25.0	24.0	25.0
31	---	---	5.0	8.0	---	17.0	---	22.0	---	25.0	26.0	---
MEAN	27.0	21.0	10.0	7.0	13.0	17.0	17.5	21.0	25.0	25.0	24.5	26.5

WTR YR 1984 MEAN 19.5 MAX 29.0 MIN 4.0

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3500	1990	240	110	488	1190	605	1670	306	811	822	2240
2	895	544	231	112	492	1230	532	1410	342	871	683	1750
3	1580	934	209	109	479	1250	503	1180	521	1290	703	1660
4	2430	1230	168	86	475	1280	784	1760	487	1180	1610	3730
5	650	309	187	124	1050	3120	629	1420	438	1050	1860	4350
6	329	150	114	67	785	2350	1320	3370	542	1320	1720	3920
7	282	126	189	116	798	2480	1910	5620	2480	6090	2000	4630
8	196	88	467	290	1080	3530	1570	4580	6880	16500	2010	4290
9	216	99	652	415	937	3010	655	1800	5910	14100	2040	4020
10	214	99	560	351	853	2630	246	704	5190	12600	1540	2950
11	257	131	611	391	990	2860	217	615	4790	11700	827	1560
12	469	253	551	350	1160	3260	122	349	7850	19500	875	1610
13	424	232	699	425	950	2570	83	231	2550	6190	750	1320
14	225	118	785	487	1400	4230	159	282	2810	6860	875	1510
15	178	83	992	544	1270	3980	68	92	2170	5200	850	1460
16	340	180	733	319	1120	3840	318	7980	2610	6240	925	1790
17	148	90	815	348	850	2820	674	2200	2340	5590	1860	4440
18	110	59	1070	454	895	2970	537	1880	2550	6240	4290	12200
19	178	82	727	402	641	2080	546	1950	2040	5000	3560	11400
20	279	126	839	1330	800	2530	482	1470	1150	3010	2780	9530
21	340	163	740	1310	807	2530	604	1680	528	1350	3130	10400
22	161	76	610	1060	801	2100	463	1200	502	1210	3350	11800
23	139	66	426	890	1210	2070	388	911	539	1290	3600	13100
24	143	75	490	1110	933	1860	336	760	588	1460	1040	3880
25	562	328	523	1140	961	2850	424	970	575	1380	1420	5330
26	214	125	545	1260	629	1940	335	770	[illegible]	1940	725	2740
27	167	95	540	1360	521	1630	355	890	633	1500	650	2470
28	187	108	580	1440	421	1350	242	614	920	2210	700	2570
29	200	111	515	1160	461	1510	265	631	803	2020	545	2100
30	221	128	505	1170	655	1930	267	668	---	---	550	2150
31	232	125	---	---	568	1560	351	925	---	---	600	2370
TOTAL	---	8323	---	18730	---	74540	---	50582	---	145702	---	139270

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	898	3560	864	2800	1790	6860	513	2270	217	88	1410	1270
2	2600	10400	728	2520	1490	6160	599	2680	161	52	2190	1690
3	2420	9740	688	2410	1370	5960	587	2570	145	41	4720	3400
4	1860	7080	647	2320	1290	5680	524	2240	195	56	1350	929
5	2010	6460	980	3550	1620	7040	499	2100	229	79	1040	680
6	1300	4110	1070	3930	1360	5880	241	983	6000	4180	1000	583
7	929	3310	1030	3780	1390	6000	175	572	6000	5050	1020	562
8	1390	4880	1180	4400	1190	4950	180	441	11800	10400	1000	540
9	1120	3870	1690	6390	1220	5140	198	381	12800	9140	1070	664
10	1310	4600	2330	8870	686	3000	225	355	17300	47000	909	542
11	800	2940	2270	8700	975	4290	320	418	6380	10700	25300	13300
12	525	1930	4030	15800	945	4060	235	286	6210	8650	63300	32600
13	424	1520	2650	10400	950	4050	204	165	6260	6710	3210	1610
14	475	1640	2700	10400	750	3140	149	113	13300	18500	2550	1250
15	1200	1650	1940	7600	933	4030	383	279	16000	29600	2160	1050
16	725	654	1530	6030	975	4160	393	286	9010	6250	2000	961
17	4820	3900	1750	6850	1180	5190	321	244	10500	7170	2110	1010
18	7140	5490	1520	5870	890	3890	398	406	10300	8040	2050	1040
19	3710	3090	1740	6620	704	3140	488	534	9250	6590	2350	1950
20	5520	4960	1660	6320	516	2310	5410	7120	10900	8210	2670	2480
21	1190	1170	1800	6710	553	2520	5840	6390	8750	5430	2010	1370
22	1030	1020	1380	5180	551	2470	5640	5040	5950	4400	3830	2790
23	952	951	1550	5480	567	2620	7840	10900	18400	24600	4060	2690
24	1110	1070	1860	6480	609	2880	5710	5670	42000	38400	3760	2440
25	925	977	1580	5590	644	3100	5640	3880	63300	152000	3910	2460
26	1090	1440	1570	5470	545	2560	7600	4860	30600	90100	4170	2660
27	907	1270	1430	5140	362	1690	7050	4660	14300	26600	4200	3740
28	1450	3610	1690	6250	555	2550	7390	4610	46000	87800	3990	2990
29	1120	3240	1500	5750	528	2440	7210	4340	2500	5690	4250	4300
30	1120	3420	2100	7990	539	2460	2680	1660	1980	4610	4000	4640
31	---	---	1980	7700	---	---	267	137	1450	2590	---	---
TOTAL	---	103952	---	193300	---	120220	---	76590	---	628726	---	98191

TOTAL LOAD FOR YEAR: 1658126 TONS.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°40'50", long 106°59'30", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 33, on pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.1 mi downstream from former site of San Marcial, 18.5 mi southwest of San Antonio, and at mile 1,425.2.

DRAINAGE AREA.--27,700 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Records collected at this site January 1895 to September 1964 represented total flow of the river and were published as Rio Grande at San Marcial (station 08358500). Records of daily discharge for floodway only April 1950 to September 1964 are available in files of district office.

GAGE.--Water-stage recorder. Datum of gage is 4,455.19 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Floodway is 1 of 2 channels (station 08358300) carrying flow in valley cross section. Prior to 1950 all flow was in floodway channel. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft^3/s) is exceeded. Combined monthly discharge in acre-ft is given at end of each year table. Diversion for irrigation of about 775,000 acres above station (includes about 13,800 acre-ft diverted from conveyance channel, as based on weekly measurements, data furnished by Bureau of Reclamation).

AVERAGE DISCHARGE.--20 years (water years 1965-84), 575 ft^3/s, 416,600 acre-ft/yr.
Total flow of river.--89 years (water years 1895-1984), 1,238 ft^3/s, 896,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895 about 50,000 ft^3/s Oct. 11, 1904; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,620 ft^3/s at 1530 hours June 8, gage height, 17.94 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	12	.00	.00	.00	.00	.00	1600	4940	707	.00	18
2	19	12	.00	.00	.00	.00	.00	1220	5020	804	.00	16
3	190	28	.00	.00	.00	.00	.00	1100	5000	824	.00	14
4	33	80	.00	.00	.00	.00	.00	1270	5090	634	.00	12
5	30	130	.00	.00	.00	.00	.00	1260	5010	557	.00	4.9
6	25	150	.00	.00	.00	.00	.00	1290	5150	453	66	.00
7	30	180	.00	.00	.00	.00	.00	1540	5160	154	92	.00
8	35	200	.00	.00	.00	.00	.00	1770	5330	27	26	.00
9	40	250	.00	.00	.00	.00	.00	2400	5280	12	6.0	.00
10	40	280	.00	.00	.00	.00	.00	2520	5080	5.4	1.3	.00
11	150	330	.00	.00	.00	.00	.00	2670	3830	.61	4.2	.00
12	227	370	.00	.00	.00	.00	.00	2600	2530	.00	.00	.00
13	201	380	.00	.00	.00	.00	.00	3120	2320	.00	.00	.00
14	167	386	.00	.00	.00	.00	.00	3860	1180	.00	2.2	.00
15	124	444	.00	11	.00	.00	750	4030	846	.00	1.3	.00
16	96	454	.00	31	.00	.00	1070	3640	964	.00	.11	.00
17	62	421	.00	3.1	.00	.00	1500	3230	763	.00	.00	.00
18	40	343	.00	.00	.00	.00	1720	3480	744	.00	.00	.00
19	41	277	.00	.00	.00	.00	2040	3690	918	.00	.00	.00
20	48	69	.00	.00	.00	.00	2670	3760	1140	.00	.00	.00
21	51	13	.00	.00	.00	.00	3240	3890	2310	.00	.00	.00
22	39	7.3	.00	.00	.00	.00	3480	3890	1640	.00	.00	.00
23	39	2.7	.00	.00	.00	.00	3530	4150	986	.00	.01	.00
24	65	.56	.00	.00	.00	.00	3640	4340	655	.00	42	.00
25	54	.00	.00	.00	.00	.00	3460	4760	672	.00	47	.00
26	63	.00	.00	.00	.00	.00	3310	4650	884	.00	41	.00
27	44	.00	.00	.00	.00	.00	3480	4780	1090	.00	36	.00
28	54	.00	.00	.00	.00	.00	3180	4730	1260	.00	31	.00
29	32	.00	.00	.00	.00	.00	2430	4630	958	.00	26	.00
30	19	.00	.00	.00	---	.00	2070	4840	830	.00	23	.00
31	15	---	.00	.00	---	.00	---	4950	---	.00	20	---
TOTAL	2073.26	4819.56	.00	45.10	.00	.00	41570.00	99660	77580	4178.01	465.12	64.90
MEAN	66.9	161	.000	1.45	.000	.000	1386	3215	2586	135	15.0	2.16
MAX	227	454	.00	31	.00	.00	3640	4950	5330	824	92	18
MIN	.26	.00	.00	.00	.00	.00	.00	1100	655	.00	.00	.00
AC-FT	4110	9560	.00	89	.00	.00	82450	197700	153900	8290	923	129
(†)	15960	34620	66640	59150	52200	63630	135600	282300	251000	47670	27990	14950

CAL YR 1983 TOTAL 505333.15 MEAN 1384 MAX 5350 MIN .00 AC-FT 1002000 (†) MEAN 1657 AC-FT 1199000
WTR YR 1984 TOTAL 230455.95 MEAN 630 MAX 5330 MIN .00 AC-FT 457100 (†) MEAN 1453 AC-FT 1052000

(†) COMBINED FLOW, IN ACRE-FT AND MEAN, IN CUBIC FEET PER SECOND, OF FLOODWAY AND CONVEYANCE CHANNEL.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1905-07, 1946 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1905 to April 1907, July 1946 to current year.
WATER TEMPERATURES: January 1949 to current year.
SUSPENDED-SEDIMENT DISCHARGES: July 1946 to current year.

REMARKS.--Records of chemical analyses and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission. Additional sediment total load determinations were made biweekly when needed.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,730 microsiemens Apr. 8, 1953; minimum daily, 277 microsiemens June 12, 1983.
WATER TEMPERATURES: Maximum daily, 36.0°C Aug. 11, 1951, Aug. 1, 4, 1982; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 135,000 mg/L July 23, 1977; minimum daily mean, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 1,200,000 tons Sept. 21, 1982; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,270 microsiemens Oct. 2; minimum daily, 278 microsiemens May 16.
WATER TEMPERATURES: Maximum daily, 28.0°C several days in Oct., June and July; minimum daily, 11.0°C Nov. 14.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 61,000 mg/L Oct. 3; minimum daily mean, no flow many days throughout the year.
SEDIMENT LOADS: Maximum daily, 59,100 tons June 5; minimum daily, 0 tons on many days throughout the year.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
12...	1100	225	14.0	5820	3540	64	70	90
NOV								
02...	1045	13	12.5	713	25	79	92	96
14...	1100	371	11.0	4050	4060	31	37	67
APR								
18...	1100	1840	16.0	7200	35800	23	28	55
27...	1800	536	14.0	4530	6560	--	--	--
MAY								
09...	1545	2170	19.0	2470	14500	38	45	66
12...	1800	1470	19.0	4630	18400	--	--	--
21...	1840	1390	24.0	2910	10900	--	--	--
25...	0900	4940	20.0	1430	19100	13	15	24
31...	1845	1430	23.0	1130	4360	--	--	--
JUN								
04...	0945	5150	17.5	3180	44200	16	18	30
15...	1805	1470	23.0	832	3300	--	--	--
19...	1030	897	22.0	1410	3410	30	37	50
JUL								
06...	0900	530	23.0	660	944	32	38	52
AUG								
07...	1100	73	23.0	49900	9840	70	81	96

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT							
12...	--	--	--	99	100	--	--
NOV							
02...	--	--	--	98	99	100	--
14...	86	93	100	--	--	--	--
APR							
18...	90	97	100	--	--	--	--
27...	--	--	--	68	--	--	--
MAY							
09...	92	98	100	--	--	--	--
12...	--	--	--	90	--	--	--
21...	--	--	--	99	--	--	--
25...	53	78	100	--	--	--	--
31...	--	--	--	86	--	--	--
JUN							
04...	58	89	100	--	--	--	--
15...	--	--	--	99	--	--	--
19...	79	95	100	--	--	--	--
JUL							
06...	--	--	--	73	85	97	100
AUG							
07...	97	99	100	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBEP 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT									
12...	1100	225	5820	3540	24	37	88	100	--
NOV									
02...	1045	13	713	25	3	12	86	100	--
14...	1100	371	4050	4060	2	36	96	100	--
APR									
18...	1100	1840	7200	35800	4	42	95	100	--
MAY									
09...	1545	2170	2470	14500	4	32	95	100	--
25...	0900	4940	1430	19100	23	43	84	99	100
JUN									
04...	0945	5150	3180	44200	8	80	100	--	--
19...	1030	897	1410	3410	40	66	87	99	100
JUL									
06...	0900	530	660	944	1	3	65	98	100
AUG									
07...	1100	73	49900	9840	2	19	93	100	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT, DISCH, SUSP. + BED MA-TERIAL (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
OCT									
12...	1100	225	14.0	5820	3540	3760	130	.94	1.80
NOV									
02...	1045	13	12.5	713	25	675	18.0	.57	1.30
14...	1100	371	11.0	4050	4060	4200	154	1.4	1.70
APR									
18...	1100	1840	16.0	7200	35800	40400	194	1.8	5.30
MAY									
09...	1545	2170	19.0	2470	14500	17200	208	2.2	4.80
25...	0900	4940	20.0	1430	19100	22200	260	3.4	5.60
JUN									
04...	0945	5150	17.5	3180	44200	52600	335	3.1	5.00
19...	1030	897	22.0	1410	3410	3970	206	1.6	2.80
JUL									
06...	0900	530	23.0	660	944	1240	190	1.5	1.90
AUG									
07...	1100	73	23.0	49900	9840	10200	54.0	.63	2.20

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	---					---	350	412	384	---	
2	1270	819					---	355	409	383	---	
3	1240	---					---	359	805	386	---	
4	1220	---					---	359	431	384	---	
5	749	---					---	361	434	385	---	
6	707	---					---	361	531	---	---	
7	704	---					---	332	521	390	1030	
8	695	---					---	327	692	---	---	
9	700	---					---	331	363	---	---	
10	705	---					---	315	379	---	---	
11	701	---					---	316	376	---	---	
12	739	---					---	406	378	---	---	
13	745	---					---	327	378	---	---	
14	745	703					---	327	381	---	---	
15	751	---					---	287	398	---	---	
16	747	---					360	278	382	---	---	
17	755	---					481	279	386	---	---	
18	750	---					418	280	441	---	---	
19	731	---					425	279	450	---	---	
20	726	---					500	281	449	---	---	
21	727	---					503	282	453	---	---	
22	724	---					396	282	449	---	---	
23	728	---					386	282	453	---	---	
24	721	---					383	280	419	---	---	
25	729	---					385	381	441	---	---	
26	725	---					719	406	447	---	---	
27	732	---					410	410	452	---	---	
28	---	---					391	413	448	---	---	
29	---	---					492	412	397	---	---	
30	---	---					396	410	392	---	---	
31	---	---					---	413	---	---	---	
MEAN	804	761					443	338	445	385	1030	

WTR YR 1984 MEAN 509 MAX 1270 MIN 278

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28.0	---					---	17.0	23.0	27.0	---	
2	26.0	12.5					---	19.0	24.0	27.0	---	
3	26.0	---					---	19.0	23.0	28.0	---	
4	26.0	---					---	19.0	22.0	27.0	---	
5	27.0	---					---	18.0	23.5	26.0	---	
6	26.0	---					---	20.0	23.0	---	---	
7	27.0	---					---	18.0	24.0	23.0	23.0	
8	25.0	---					---	17.0	23.0	---	---	
9	27.0	---					---	19.0	24.0	---	---	
10	26.0	---					---	19.0	22.0	---	---	
11	28.0	---					---	18.0	23.0	---	---	
12	28.0	---					---	19.0	24.0	---	---	
13	27.0	---					---	18.5	22.0	---	---	
14	26.0	11.0					---	23.0	24.0	---	---	
15	25.0	---					---	22.0	23.0	---	---	
16	28.0	---					17.0	23.0	23.0	---	---	
17	27.0	---					17.0	24.0	23.0	---	---	
18	26.0	---					18.5	22.0	24.5	---	---	
19	28.0	---					18.0	22.0	26.0	---	---	
20	28.0	---					17.0	23.0	27.0	---	---	
21	27.0	---					15.0	24.0	26.5	---	---	
22	27.0	---					17.0	23.0	25.0	---	---	
23	26.0	---					18.0	24.0	27.0	---	---	
24	28.0	---					17.0	24.0	28.0	---	---	
25	27.0	---					17.0	23.0	26.0	---	---	
26	28.0	---					15.0	22.0	27.0	---	---	
27	28.0	---					14.0	24.0	27.0	---	---	
28	---	---					12.0	23.0	26.0	---	---	
29	---	---					11.5	23.0	27.0	---	---	
30	---	---					14.0	22.0	25.0	---	---	
31	---	---					---	23.0	---	---	---	
MEAN	27.0	12.0					16.0	21.0	24.5	26.5	23.0	

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	24300	37	1590	52	0	.00	0	.00	0	.00	0	.00
2	51000	3030	672	22	0	.00	0	.00	0	.00	0	.00
3	61000	5740	2210	167	0	.00	0	.00	0	.00	0	.00
4	59000	5420	3660	791	0	.00	0	.00	0	.00	0	.00
5	26000	2110	3940	1380	0	.00	0	.00	0	.00	0	.00
6	6280	424	2770	1120	0	.00	0	.00	0	.00	0	.00
7	6340	514	2450	1190	0	.00	0	.00	0	.00	0	.00
8	6300	595	2210	1190	0	.00	0	.00	0	.00	0	.00
9	6140	663	2450	1650	0	.00	0	.00	0	.00	0	.00
10	3180	343	2860	2160	0	.00	0	.00	0	.00	0	.00
11	2400	972	3090	2750	0	.00	0	.00	0	.00	0	.00
12	2610	1600	3160	3160	0	.00	0	.00	0	.00	0	.00
13	2120	1150	3580	3670	0	.00	0	.00	0	.00	0	.00
14	1970	888	4740	4940	0	.00	0	.00	0	.00	0	.00
15	1980	663	5140	6160	0	.00	1240	142	0	.00	0	.00
16	2020	524	5150	6310	0	.00	3180	266	0	.00	0	.00
17	2530	424	4810	5470	0	.00	288	9.6	0	.00	0	.00
18	3170	342	4220	3910	0	.00	0	.00	0	.00	0	.00
19	1730	192	3830	2860	0	.00	0	.00	0	.00	0	.00
20	2640	342	2290	427	0	.00	0	.00	0	.00	0	.00
21	1960	270	1270	45	0	.00	0	.00	0	.00	0	.00
22	1610	170	764	15	0	.00	0	.00	0	.00	0	.00
23	1850	195	477	3.5	0	.00	0	.00	0	.00	0	.00
24	2150	377	285	.43	0	.00	0	.00	0	.00	0	.00
25	1580	230	0	.00	0	.00	0	.00	0	.00	0	.00
26	1720	293	0	.00	0	.00	0	.00	0	.00	0	.00
27	1900	226	0	.00	0	.00	0	.00	0	.00	0	.00
28	2460	359	0	.00	0	.00	0	.00	0	.00	0	.00
29	1790	155	0	.00	0	.00	0	.00	0	.00	0	.00
30	1610	83	0	.00	0	.00	0	.00	---	---	0	.00
31	1690	68	---	---	0	.00	0	.00	---	---	0	.00
TOTAL	---	28399	---	49442.93	---	0.00	---	417.60	---	0.00	---	0.00

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	0	.0	1150	4970	1180	15700	476	909	0	.00	895	43
2	0	.0	1030	3390	1100	14900	590	1280	0	.00	1000	43
3	0	.0	1050	3120	2120	28600	415	923	0	.00	900	34
4	0	.0	1350	4630	3220	44300	424	726	0	.00	990	32
5	0	.0	1580	5380	4370	59100	538	809	0	.00	600	7.9
6	0	.0	973	3390	2680	37300	600	734	46900	8360	0	.00
7	0	.0	2690	11200	2720	37900	580	241	38700	9610	0	.00
8	0	.0	2380	11400	1280	18400	100	7.3	30700	2160	0	.00
9	0	.0	3420	22200	736	10500	100	3.2	9320	151	0	.00
10	0	.0	3510	23900	725	9940	140	2.0	5740	20	0	.00
11	0	.0	4760	34300	701	7250	125	.21	2050	23	0	.00
12	0	.0	4780	33600	912	6230	0	.00	0	.00	0	.00
13	0	.0	4500	37900	878	5500	0	.00	0	.00	0	.00
14	0	.0	5560	57900	926	2950	0	.00	9200	55	0	.00
15	5390	10900	3240	35300	934	2130	0	.00	5000	18	0	.00
16	5070	14600	1780	17500	918	2390	0	.00	2700	.80	0	.00
17	4110	16600	1730	15100	870	1790	0	.00	0	.00	0	.00
18	6440	29900	2100	19700	905	1820	0	.00	0	.00	0	.00
19	6120	33700	2170	21600	1320	3270	0	.00	0	.00	0	.00
20	3800	27400	2290	23200	1220	3760	0	.00	0	.00	0	.00
21	2850	24900	2910	30600	1290	9440	0	.00	5	.00	0	.00
22	3340	31400	2950	31000	1110	4920	0	.00	0	.00	0	.00
23	3340	31800	3030	34000	746	1990	0	.00	348	.00	0	.00
24	3020	29700	2280	26700	740	1310	0	.00	2160	245	0	.00
25	2710	25300	1730	22200	740	1340	0	.00	900	114	0	.00
26	2690	24000	1450	18200	814	1940	0	.00	902	100	0	.00
27	4670	43900	1290	16600	813	2390	0	.00	1180	115	0	.00
28	2550	21900	1090	13900	888	3020	0	.00	1000	84	0	.00
29	3250	21300	1550	19400	638	1650	0	.00	990	69	0	.00
30	2710	15100	1240	16200	563	1260	0	.00	890	55	0	.00
31	---	---	985	13200	---	---	0	.00	875	47	---	---
TOTAL	---	402400.0	---	631680	---	342990	---	5634.71	---	21226.80	---	159.90

TOTAL LOAD FOR YEAR: 1482350.94 TONS.

BEST COPY AVAILABLE

08360500 ELEPHANT BUTTE RESERVOIR AT ELEPHANT BUTTE, NM

LOCATION.--Lat 33°09'15", long 107°11'28", in NW¼ sec.30, T.13 S., R.3 W., Sierra County, Hydrologic Unit 13020211, at dam on Rio Grande, 1 mi west of Elephant Butte, 4 mi northeast of Truth or Consequences (Hot Springs) and at mile 1,383.2.

DRAINAGE AREA.--29,445 mi^2, approximately including 2,940 mi^2 in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1915 to December 1939 (monthend contents only published in WSP 1312), January 1940 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 1442: 1954(m). WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft National Geodetic Vertical Datum of 1929. Oct. 16, 1939, to May 2, 1940, and prior to September 1930, nonrecording gages.

REMARKS.--Reservoir is formed by concrete dam. Storage began Jan. 6, 1915. Dam completed May 13, 1916. Capacity, 2,110,000 acre-ft survey of 1980 at gage height 4,407.0 ft crest of spillway. Capacity by original survey was 2,638,900 acre-ft. No adjustment made for decrease in capacity due to sedimentation between effective dates of capacity tables. No dead storage. No storage allocated to flood control. Water is used for power development and irrigation on Rio Grande Project of Bureau of Reclamation. A 50,000 acre-ft permanent pool is authorized for recreational purposes.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 2,303,000 acre-ft June 16-18, 1942, gage height, 4,409.19 ft; minimum daily contents after initial filling, 9,900 acre-ft Aug. 6, 1954, gage height, 4,258.03 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,578,800 acre-feet July 1, gage height, 4,391.27 ft ;minimum daily contents, 1,236,400 acre-ft Oct. 1, gage height, 4,382.35 ft.

Capacity table (gage height, in feet, and contents, in thousands of acre-feet)

4,350	655.0	4,380	1,264.3
4,360	826.2	4,390	1,540.7
4,370	1,027.6	4,400	1,860.9

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1236400	1249500	1272300	1325600	1324500	1313900	1321600	1331400	1480700	1578800	1510600	1510600
2	1238900	1250500	1272800	1326600	1324000	1313400	1322100	1332500	1488500	1576900	1506500	1511200
3	1240400	1251100	1274300	1326100	1323700	1313400	1321900	1333600	1496300	1577300	1505400	1509700
4	1243200	1253100	1276600	1325300	1322900	1317900	1321100	1334600	1505400	1577900	1501900	1508600
5	1244700	1253600	1277400	1324800	1323700	1315000	1320500	1334900	1512400	1577300	1501600	1508300
6	1246200	1252100	1278400	1324500	1323400	1314700	1319700	1335400	1520600	1575700	1501300	1506800
7	1246700	1252300	1280200	1325800	1323400	1314200	1319200	1334900	1529100	1573600	1501600	1506800
8	1248300	1253100	1282600	1327200	1322900	1314200	1318700	1335200	1537700	1571800	1500700	1507400
9	1248800	1252800	1284600	1328200	1322400	1314200	1318700	1335400	1545400	1570000	1499200	1507700
10	1249300	1253100	1287000	1326100	1321900	1313400	1315800	1336800	1552900	1567600	1498900	1507700
11	1250300	1254900	1289600	1325600	1321300	1314200	1314500	1342400	1558600	1564300	1498700	1506800
12	1249800	1255900	1290600	1324800	1322400	1313400	1312600	1346100	1561600	1561600	1498700	1505900
13	1249800	1257200	1292200	1324200	1322100	1313400	1311600	1350200	1564300	1559200	1498100	1505400
14	1249800	1257700	1293200	1325600	1321600	1313100	1309200	1353700	1566100	1557100	1497500	1503000
15	1249500	1259400	1295000	1326100	1321100	1312300	1307300	1359100	1566700	1554700	1498700	1500700
16	1249300	1260000	1296300	1324200	1319700	1311600	1305200	1364500	1567000	1552000	1498900	1494600
17	1249300	1261200	1298400	1323400	1318900	1312900	1303400	1369900	1567300	1546900	1498100	1491400
18	1249300	1260500	1300000	1323400	1319200	1313100	1303400	1376800	1566700	1544300	1497800	1488200
19	1250500	1260000	1301800	1322900	1320300	1313700	1301100	1383300	1566100	1541900	1498700	1484700
20	1250800	1260000	1304200	1322900	1318400	1314500	1300800	1390200	1567000	1539200	1498700	1483300
21	1251100	1261200	1306600	1324000	1291400	1314500	1303400	1397400	1567600	1536800	1498900	1482100
22	1251300	1261700	1308400	1325600	1316800	1314500	1305800	1406000	1570600	1533900	1499200	1479800
23	1251300	1261700	1310200	1325300	1316600	1314500	1309200	1412600	1570900	1533600	1498100	1479800
24	1254100	1263000	1309200	1324200	1315800	1316000	1313400	1420200	1571200	1530000	1498100	1478700
25	1251100	1263800	1310500	1323700	1316300	1319200	1315000	1426900	1572400	1527100	1501000	1477200
26	1250500	1265300	1312300	1323200	1316800	1320300	1319200	1434800	1572400	1523800	1503600	1478400
27	1250800	1266100	1313900	1321900	1316000	1321100	1322100	1443800	1574800	1521500	1505100	1476400
28	1251300	1267100	1316600	1323200	1315500	1321600	1324800	1449200	1576600	1519100	1497800	1472300
29	1251600	1268700	1317600	1325800	1315000	1321900	1326900	1456900	1577300	1516800	1509200	1469200
30	1251800	1269900	1319500	1325000	---	1322700	1329000	1464300	1577900	1513800	1510600	1467700
31	1251800	---	1322700	1324200	---	1321600	---	1472900	---	1510600	1510600	---
MAX	1254100	1269900	1322700	1328200	1324500	1322700	1329000	1472900	1577900	1578800	1510600	1511200
MIN	1236400	1249500	1272300	1321900	1291400	1311600	1300800	1331400	1480700	1510600	1497500	1467700
(†)	4379.51	4380.22	4382.24	4382.30	4381.95	4382.20	4382.48	4387.68	4391.24	4388.98	4388.98	4387.50
(††)	+15400	+18100	+52800	+1500	-9200	+6600	+7400	+143900	+105000	-67300	0	-42900

CAL YR 1983 MAX 1359000 MIN 918300 (††) +406000
WTR YR 1984 MAX 1578800 MIN 1236400 (††) +231300

(†) ELEVATION, IN FEET, AT END OF MONTH.
(††) CHANGE IN CONTENTS, IN ACRE-FEET.

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM

LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, Hydrologic Unit 13030101, in Pedro Armendaris Grant, on left bank 1.0 mi downstream from dam, 1.5 mi upstream from Cuchillo Negro River, and at mile 1,382.2.

DRAINAGE AREA.--29,450 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1915 to current year. Monthly or annual discharge only for some periods, published in WSP 1732. Figures of daily discharge, published in WSP 458 for October to December 1916, are unreliable.

REVISED RECORDS.--WSP 1562: 1920. WSP 1632: Drainage area. WSP 1732: 1917, 1920. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,241.09 ft National Geodetic Vertical Datum of 1929. Prior to Mar. 24, 1980 at datum 1.0 ft higher. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Water-discharge records good except those for March, July and August, which are fair. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres above station.

AVERAGE DISCHARGE.--69 years, 966 ft^3/s, 699,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,220 ft^3/s May 22, 1942; no flow at times prior to 1929, Mar. 2-4, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,210 ft^3/s May 29-June 1; minimum daily, 0.10 ft^3/s at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	13	12	22	1040	1070	1400	2180	2210	1960	613	29
2	9.5	13	12	22	1050	1070	1400	2180	1910	1960	603	25
3	2.6	16	12	1050	1040	1070	1410	2160	2200	1960	609	24
4	.40	23	13	1050	1050	31	1410	2130	2140	1970	613	22
5	.10	19	13	1050	32	1050	1410	2130	2170	1950	615	18
6	.10	1030	13	1050	1010	1050	1430	2110	2180	1940	635	16
7	.10	18	14	33	1030	1050	1430	2100	2170	1920	632	19
8	.10	10	14	30	1040	1050	1430	2100	2150	1230	632	16
9	.10	9.3	13	993	1050	1050	1470	2100	2150	1240	633	16
10	.10	9.3	12	1050	1060	1050	2150	2100	2140	1230	640	224
11	.10	9.3	12	1040	1050	26	2170	2100	2130	1230	648	18
12	.10	10	16	1040	31	676	2170	2100	2110	1230	653	21
13	.28	11	21	1040	1050	678	2150	2110	2110	1240	659	1230
14	.77	11	26	35	1060	685	2160	2110	2110	1240	661	1320
15	.10	16	26	29	1040	680	2160	2110	2110	1240	39	1310
16	.10	16	24	1030	1030	681	2150	2110	2100	1250	16	1310
17	3.2	13	23	1030	1050	686	2140	2110	2100	1250	15	1310
18	16	13	23	1030	1040	25	2150	2090	2100	1250	17	1230
19	15	13	23	1030	25	680	2150	2100	2090	1240	16	459
20	14	13	6.1	1010	1020	684	2150	2100	2070	1240	18	428
21	13	8.7	4.5	25	1030	686	2140	2120	2060	1240	19	435
22	12	2.7	4.3	20	1040	686	2150	2120	2060	1250	18	440
23	11	11	12	1050	1040	692	2150	2140	2050	1250	18	21
24	11	11	20	1020	1030	688	2150	2160	2040	1250	18	440
25	10	12	20	1040	733	26	2150	2160	2040	1240	18	439
26	11	12	21	1020	26	700	2150	2180	2010	1240	19	442
27	11	12	20	1030	1050	694	2160	2190	2010	1250	19	440
28	11	12	21	33	1060	696	2170	2200	1990	1250	20	515
29	12	12	22	29	1180	965	2170	2210	1990	1240	18	1290
30	12	12	22	1030	---	1410	2180	2210	1970	1230	15	912
31	12	---	22	1050	---	1410	---	2210	---	1240	108	---
TOTAL	189.73	1391.3	516.9	22011	25987	23695	58060	66230	62670	43450	9257	14419
MEAN	6.12	46.4	16.7	710	896	764	1935	2136	2089	1402	299	481
MAX	16	1030	26	1050	1180	1410	2180	2210	2210	1970	661	1320
MIN	.10	2.7	4.3	20	25	25	1400	2090	1910	1230	15	16
AC-FT	376	2760	1030	43660	51550	47000	115200	131400	124300	86180	18360	28600

CAL YR 1983 TOTAL 321913.42 MEAN 882 MAX 2210 MIN .10 AC-FT 638500
WTR YR 1984 TOTAL 327876.93 MEAN 896 MAX 2210 MIN .10 AC-FT 650300

08362000 CABALLO RESERVOIR NEAR ARREY, NM

LOCATION.--Lat 32°53'47", long 107°17'30", in SE¼SW¼ sec.19, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030101, in control tower of Caballo Dam on Rio Grande, 0.5 mi downstream from mouth of Apache Canyon, 0.9 mi upstream from Bojarquez Bridge, 2 mi upstream from Percha diversion dam, 3.5 mi northeast of Arrey, 5.2 mi south of Caballo, and at mile 1,356.6.

DRAINAGE AREA.--30,700 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1938 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 978: 1942. WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam, completed Sept. 19, 1938. Storage began Feb. 8, 1938. Capacity by 1981 survey, 331,500 acre-ft between gage heights 4,104 ft bottom of tunnel entrance of gates and 4,182 ft gage height above which spillway gates operate automatically. Capacity by original survey was 345,900 acre-ft. No dead storage. Storage held for flood control, 100,000 acre-ft. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project for Bureau of Reclamation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 347,000 acre-ft Mar. 4, 1942, gage height, 4,182.06 ft; minimum daily contents, 118 acre-ft, Oct. 14, 1938, gage height, 4,108.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 124,800 acre-ft July 2, 3, gage height 4,159.08 ft; minimum daily contents, 11,400 acre-ft Sept. 28, gage height, 4,129.84 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

4,125	4,810	4,150	71,800
4,130	11,680	4,160	131,200
4,140	33,770	4,170	209,400

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34110	38010	43460	46100	86400	108300	62800	82900	103600	124000	84100	57300
2	34370	38130	43630	46200	88300	108300	63300	83700	104100	124800	82000	54400
3	35080	38230	43600	47100	90200	107700	63500	84300	104500	124800	79600	51400
4	35340	38600	43830	49000	92000	106100	63000	85300	105500	124500	78400	48500
5	35460	39350	44010	50800	92400	105300	62900	86400	106100	124300	78400	45400
6	35700	40860	43900	52700	93800	105700	62600	88000	106600	124400	78800	42100
7	35780	41420	43970	53400	95700	105500	62700	89500	107100	124100	78600	39100
8	35930	41950	44210	53400	97400	105300	62700	90800	107900	122900	78000	36100
9	35960	42150	44210	55000	98600	104800	63000	91400	108600	121600	78100	32900
10	36110	42210	44380	56500	99300	104400	63200	92300	109300	119600	78700	29700
11	36260	42350	44420	58800	99900	102500	64100	93000	109800	117300	80300	26800
12	36230	42410	44380	60300	99300	100700	64500	93800	109900	115000	81700	23700
13	36260	42450	44420	62100	99600	99200	65800	94500	109400	113100	83200	22000
14	36350	42610	44420	62800	101700	97000	67500	95200	109400	111500	84300	22100
15	36440	42650	44660	62900	102900	95100	69200	95800	109100	110300	84600	21900
16	36500	42710	44700	64200	104100	92900	70900	96100	109300	108500	84700	22200
17	36610	42750	44800	66000	105000	90300	72100	96700	109800	106000	84000	22400
18	36580	42650	44770	68100	106500	87200	73000	97500	110500	103700	82800	22500
19	36940	42650	44870	69900	105500	84300	73500	98600	112100	101600	81300	23400
20	36980	42650	44900	71600	105500	81900	74700	99800	114600	99500	79800	19500
21	36980	42980	45010	71800	106500	79300	76200	100900	116500	97600	77600	18300
22	37040	43020	45010	71900	107500	76900	77400	102200	117800	96000	75300	17400
23	37130	43080	45040	73500	108600	74400	78800	102200	119100	94300	72600	16400
24	37730	43080	45080	75600	109300	72000	79200	101900	120000	92800	71000	14700
25	37340	43120	45180	77100	110000	68900	79200	101700	122100	91400	69500	13700
26	37340	43260	45260	79200	109500	66400	79200	102200	122400	89900	69200	12800
27	37610	43360	45430	80900	109800	64300	79500	102600	122100	88900	68600	12300
28	37670	43320	45640	81200	110100	62900	80200	103200	122500	88400	66900	11400
29	37730	43390	45570	81300	109200	61100	81100	103300	122900	87800	64800	11500
30	37830	43490	45610	82600	---	61700	82100	103400	123500	87400	62500	11900
31	37950	---	45780	84500	---	62100	---	103600	---	86300	60100	---
MAX	37950	43490	45780	84500	110100	108300	82100	103600	123500	124800	84700	57300
MIN	34110	38010	43460	46100	86400	61100	62600	82900	103600	86300	60100	11400
(†)	4141.42	4143.13	4143.79	4152.47	4156.70	4147.91	4152.03	4155.80	4158.89	4152.81	4147.45	4130.15
(††)	+3500	+5540	+2290	+38720	+24700	-47100	+20000	+21500	+19900	-37200	-26200	-48200

CAL YR 1983 MAX 149200 MIN 34110 (††) -16230
WTR YR 1984 MAX 124800 MIN 11400 (††) -22550

(†) ELEVATION, IN FEET, AT END OF MONTH.
(††) CHANGE IN CONTENTS, IN ACRE-FEET.

08362500 RIO GRANDE BELOW CABALLO DAM, NM

LOCATION.--Lat 32°53'05", long 107°17'31", in NE¼SW¼ sec.30, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030102, on left bank 2,000 ft upstream from Interstate Highway 25, 4,200 ft downstream from Caballo Dam, 1.2 mi downstream from Apache Canyon, 1.3 mi upstream from Percha diversion dam, 3 mi northeast of Arrey, 5 mi south of Caballo, and at mile 1,355.6.

DRAINAGE AREA.--30,700 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,140.9 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, at datum 7.0 ft higher, Oct. 7-12, 1938, at datum 6.0 ft higher, and Oct. 13, 1938, to Dec. 31, 1945, at datum 5.0 ft higher than present datum.

REMARKS.--Flow regulated by Caballo Reservoir (station 08362000) capacity, 344,000 acre-ft, 1958 survey and Elephant Butte Reservoir (station 08360500) capacity, 2,109,000 acre-ft, 1974 survey. Diversions for irrigation of about 800,000 acres above station. Figures of daily discharge do not include Bonita ditch which diverts from Caballo Dam and bypasses station for irrigation below. See monthly table below for record of ditch.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--46 years, 850 ft^3/s, 615,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft^3/s May 20, 1942; minimum daily, 0.1 ft^3/s Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,510 ft^3/s July 19; minimum daily, 1.0 ft^3/s at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	281	1.2	1.4	1.0	2.0	1210	1110	1460	1680	1560	1900	1570
2	281	1.1	1.4	1.0	2.0	1290	1090	1510	1540	1560	1890	1640
3	97	1.0	1.3	1.0	2.0	1340	1250	1530	1540	1730	1800	1650
4	2.3	1.0	1.3	1.0	2.0	1380	1480	1330	1340	1980	1340	1680
5	2.3	1.1	1.2	1.0	2.0	756	1510	1180	1410	1950	1070	1710
6	2.3	1.1	1.2	1.0	2.0	736	1400	1190	1630	1940	1030	1740
7	2.3	1.2	1.2	1.0	2.0	996	1320	1180	1620	1910	988	1780
8	2.3	1.2	1.2	1.0	2.0	1020	1320	1380	1540	1920	984	1740
9	2.2	1.3	1.2	1.0	302	1140	1320	1520	1470	1930	530	1850
10	2.2	1.3	1.3	1.0	539	1220	1470	1530	1470	2220	293	1790
11	2.2	1.4	1.3	1.0	528	1300	1590	1560	1500	2500	297	1700
12	2.2	1.4	1.3	1.0	508	1290	1610	1590	1740	2500	222	1600
13	2.2	1.5	1.3	1.0	484	1520	1310	1600	2040	2300	224	1640
14	2.1	1.5	1.3	1.0	329	1740	1080	1610	2020	2120	232	1460
15	2.1	1.6	1.3	1.0	240	1730	1090	1760	1890	2110	249	1300
16	2.1	1.6	1.3	2.0	258	1790	1090	1710	1740	2110	250	1300
17	2.1	1.7	1.3	2.0	501	1840	1280	1610	1660	2340	268	1300
18	2.0	1.7	1.3	2.0	529	1850	1530	1430	1480	2470	887	1330
19	2.0	1.8	1.2	2.0	529	1870	1550	1340	1240	2510	873	1370
20	2.0	1.8	1.2	2.0	523	1910	1410	1300	964	2390	838	1370
21	2.0	1.8	1.2	2.0	510	1960	1320	1300	964	2260	1150	1160
22	1.9	1.9	1.2	2.0	500	1950	1340	1630	1160	2260	1300	992
23	1.9	1.8	1.2	2.0	500	1800	1340	1980	1280	2140	1320	992
24	1.9	1.8	1.2	2.0	458	1770	1740	1970	1280	2050	1240	992
25	1.9	1.7	1.2	2.0	423	1800	1920	1800	1290	1990	1130	992
26	1.8	1.7	1.2	2.0	400	1790	1900	1650	1620	1970	643	992
27	1.7	1.6	1.2	2.0	423	1650	1720	1660	1970	1790	716	930
28	1.6	1.6	1.2	2.0	910	1530	1550	1660	1730	1560	1130	1020
29	1.5	1.5	1.2	2.0	1410	1550	1470	1780	1600	1520	1250	1160
30	1.4	1.5	1.2	2.0	---	1360	1410	1840	1550	1440	1300	1160
31	1.3	---	1.2	2.0	---	1120	---	1830	---	1680	1390	---
TOTAL	714.8	44.4	38.7	47.0	10820.0	46208	42520	48420	45958	62710	28734	41910
MEAN	23.1	1.48	1.25	1.52	373	1491	1417	1562	1532	2023	927	1397
MAX	281	1.9	1.4	2.0	1410	1960	1920	1980	2040	2510	1900	1850
MIN	1.3	1.0	1.2	1.0	2.0	736	1080	1180	964	1440	222	930
AC-FT	1420	88	77	93	21460	91650	84340	96040	91160	124400	56990	83130
(†)	0	0	0	0	176	96	217	133	245	292	292	0

CAL YR 1983 TOTAL 326868.6 MEAN 896 MAX 2220 MIN 1.0 AC-FT 648300
WTR YR 1984 TOTAL 328124.9 MEAN 897 MAX 2510 MIN 1.0 AC-FT 650800

(†) DIVERSION, IN ACRE-FEET, BY BONITA DITCH. BONITA DITCH DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERSION IS NOT INCLUDED IN THE RIVER RECORDS.

08364000 RIO GRANDE AT EL PASO, TX
(National stream-quality accounting network)

LOCATION.--Lat 31°48'10", long 106°32'25", El Paso County, Hydrologic Unit 13030102, on downstream side of first pier from left abutment of Courchesne Bridge at El Paso, 1.7 mi upstream from American Dam, 5.6 mi upstream from Santa Fe Street-Juarez Avenue Bridge between El Paso and Cd. Juarez, Chihuahua, and at mile 1,249.

DRAINAGE AREA.--32,207 mi^2, approximately, including 2,940 mi^2 in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1889 to current year. October 1960 to September 1965 in bulletins of International Boundary and Water Commission. Monthly discharges only for some periods published in WSP 1312 or 1732.

REVISED RECORDS.--WRD NM-83-1: 1982.

GAGE.--Water-stage recorder. Datum of gage is 3,722.30 ft National Geodetic Vertical Datum of 1929. See WSP 1312 or 1732 for history of changes prior to Aug. 4, 1938.

REMARKS.--Daily discharges were computed by adding discharges of American Canal at El Paso and Rio Grande below American Dam at El Paso. Reservoirs, diversions, and drainage returns modify the river flow at this station.

COOPERATION.--Records furnished by International Boundary and Water Commission, United States and Mexico.

AVERAGE DISCHARGE.--47 years (water years 1938-84), 498 ft^3/s, 360,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft^3/s June 12, 1905; no flow at times. Maximum discharge since construction of Elephant Butte Dam in 1915, 13,500 ft^3/s Sept. 3, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,940 ft^3/s Aug. 5; minimum daily, 33 ft^3/s Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	560	161.0	94.2	79.1	55.6	399	655	617	607	810	820	777
2	556	157.0	96.1	77.7	53.1	603	531	562	685	775	848	790
3	570	154.0	98.2	74.4	49.8	444	452	550	695	761	970	814
4	584	264.0	96.4	75.1	45.8	352	441	697	698	724	1290	807
5	541	210.0	91.2	76.6	42.2	386	396	700	748	720	1940	758
6	378	199.0	88.1	76.1	38.7	573	487	697	678	718	1380	748
7	315	374.0	86.5	75.6	37.2	437	550	649	574	736	1410	568
8	308	194.0	85.0	76.9	37.3	200	592	623	668	740	1210	569
9	299	174.0	86.8	82.8	35.6	341	590	638	627	721	1110	647
10	307	153.0	85.3	75.3	34.1	390	584	603	659	728	1260	642
11	300	136.0	83.9	76.2	33.3	386	594	612	628	749	1120	844
12	261	136.0	80.9	73.5	97.3	446	607	645	584	875	1120	757
13	251	127.0	81.0	70.8	384.0	513	660	641	614	982	1220	622
14	257	126.0	79.7	68.1	294.0	516	685	636	671	999	790	541
15	240	123.0	72.5	66.6	403.0	501	667	645	859	947	696	549
16	228	132.0	78.5	65.3	372.0	487	540	873	1040	840	551	595
17	218	126.0	77.1	67.4	261.0	495	508	1090	1120	874	581	624
18	215	111.0	78.7	64.8	223.0	615	478	1030	1050	859	549	588
19	248	108.0	77.4	64.0	180.0	729	483	1020	1120	1060	417	560
20	242	107.0	77.5	62.6	310.0	728	645	917	1160	1000	362	559
21	221	107.0	77.7	61.6	315.0	762	651	824	949	1100	581	546
22	194	109.0	79.3	62.9	329.0	712	656	780	712	1040	554	569
23	202	101.0	73.6	62.8	277.0	700	620	695	628	1010	609	585
24	188	95.0	72.4	65.2	293.0	709	652	708	574	1090	681	466
25	170	96.2	73.9	60.8	290.0	683	640	816	661	1020	779	490
26	168	97.3	71.3	61.5	286.0	618	613	802	639	986	842	499
27	172	93.2	67.4	61.0	223.0	663	723	745	708	950	1020	510
28	177	91.0	71.5	59.7	210.0	647	721	626	816	978	936	509
29	170	93.8	72.9	60.4	220.0	637	740	608	952	1180	643	507
30	166	91.3	74.9	57.0	---	622	667	507	832	960	580	441
31	165	---	78.8	55.3	---	675	---	592	---	884	777	---
TOTAL	8871	4246.8	2508.7	2117.1	5430.0	16969	17828	22248	22956	27816	27646	18481
MEAN	286	142	80.9	68.3	187	547	594	718	765	897	892	616
MAX	584	374	98	82	403	762	740	1090	1160	1180	1940	844
MIN	165	91	67	55	33	200	396	550	574	718	362	441
AC-FT	17600	8420	4980	4200	10770	33660	35360	44130	45530	55170	54840	36660

CAL YR 1983 TOTAL 167361.1 MEAN 459 MAX 1090 MIN 59 AC-FT 332000
WTR YR 1984 TOTAL 177117.6 MEAN 484 MAX 1940 MIN 33 AC-FT 351300

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1930 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1978 to 1981.
WATER TEMPERATURES: January 1978 to 1981.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)
OCT										
18...	0825	238	1920	1910	8.3	8.2	--	16.5	--	--
NOV										
01...	1000	152	1980	1970	8.2	8.3	20.5	16.0	23	8.6
28...	1325	98	2070	2130	8.1	8.2	--	9.0	--	--
DEC										
21...	0845	81	2140	2160	8.1	8.1	--	4.5	--	--
JAN										
04...	1000	62	2020	2170	8.2	8.1	8.0	7.5	9.5	10.8
17...	0835	53	2220	2260	8.3	8.1	--	2.0	--	--
FEB										
16...	0835	390	1080	1090	7.9	8.0	--	1.0	--	--
MAR										
01...	0900	310	1210	1340	7.5	8.2	9.5	7.5	50	9.8
21...	0845	762	869	870	7.8	7.9	--	12.0	--	--
APR										
13...	0930	701	1030	1030	7.8	7.9	--	14.5	--	--
MAY										
04...	1400	672	950	1030	8.2	7.9	31.0	20.0	95	8.2
15...	1120	586	951	951	7.9	8.0	--	20.5	--	--
JUN										
20...	1015	1430	880	890	7.9	8.1	--	21.0	--	--
JUL										
05...	0900	715	1000	1050	8.2	8.0	27.5	24.5	70	6.8
17...	0825	840	959	974	8.1	8.0	--	21.0	--	--
AUG										
15...	0855	723	1210	1210	8.0	8.4	--	21.0	--	--
SEP										
05...	0900	758	--	1140	--	7.8	19.0	19.5	150	--
19...	0905	622	1210	1230	7.9	8.0	--	17.0	--	--

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
OCT									
18...	440	180	130	29	260	6	11	260	450
NOV									
01...	440	180	130	28	270	6	10	--	470
28...	430	170	120	32	300	7	10	260	490
DEC									
21...	450	170	130	30	310	7	10	280	480
JAN									
04...	450	160	130	30	320	7	10	--	490
17...	460	180	130	32	320	7	10	280	520
FEB									
16...	260	83	77	17	130	4	6.9	180	210
MAR									
01...	320	98	94	20	170	4	7.5	--	270
21...	230	68	68	14	92	3	5.8	160	170
APR									
13...	250	84	77	15	120	3	6.7	170	210
MAY									
04...	250	58	73	15	120	3	7.4	--	210
15...	240	72	72	15	110	3	6.8	170	200
JUN									
20...	240	80	73	14	98	3	6.7	160	180
JUL									
05...	270	91	81	16	120	3	6.8	--	230
17...	240	73	74	14	110	3	6.6	170	200
AUG									
15...	290	110	85	18	150	4	8.3	180	260
SEP									
05...	250	100	75	16	140	4	7.0	--	240
19...	290	100	86	19	150	4	8.1	190	250

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT									
18...	210	--	25	--	1300	--	--	--	--
NOV									
01...	230	.70	24	1330	1300	.41	.100	.220	.130
28...	260	--	27	--	1400	--	--	--	--
DEC									
21...	260	--	25	--	1400	--	--	--	--
JAN									
04...	250	.70	25	1440	1400	.32	.090	.200	.110
17...	270	--	26	--	1500	--	--	--	--
FEB									
16...	120	--	16	--	680	--	--	--	--
MAR									
01...	150	.60	19	861	860	.36	.100	.280	.140
21...	82	--	15	--	540	--	--	--	--
APR									
13...	100	--	17	--	650	--	--	--	--
MAY									
04...	98	.60	15	676	650	.18	.190	.300	.040
15...	82	--	15	--	600	--	--	--	--
JUN									
20...	69	--	17	--	550	--	--	--	--
JUL									
05...	94	.60	19	652	680	--	--	--	--
17...	80	--	18	--	600	--	--	--	--
AUG									
15...	120	--	22	--	770	--	--	--	--
SEP									
05...	110	.60	20	707	700	.37	.030	.470	.050
19...	130	--	21	--	780	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
NOV											
01...	1000	10	3	88	<.5	<1	<1	<3	1	8	7
MAY											
04...	1400	60	3	68	<.5	<1	2	<3	2	27	<1
JUL											
05...	0900	20	3	74	1.0	<1	<1	<3	4	10	<1
SEP											
05...	0900	40	4	78	<1.0	1	<1	<3	3	21	3

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV										
01...	200	7	.3	10	14	<1	<1	1700	<6	13
MAY										
04...	110	15	<.1	<10	<1	<1	<1	880	<6	12
JUL										
05...	110	9	.2	<10	5	<1	<1	920	<6	22
SEP										
05...	110	11	<.1	<10	3	<1	<1	960	<6	23

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
01...	1000	1100	1200
JAN			
04...	1000	420	530
MAR			
01...	0900	620	1100
MAY			
04...	1400	210	850
JUL			
05...	0900	670	1200
SEP			
05...	0900	2300	3300

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
01...	1000	152	16.0	58	24	87
JAN						
04...	1000	62	7.5	41	6.9	76
MAR						
01...	0900	310	7.5	104	87	81
MAY						
04...	1400	672	20.0	179	325	97
JUL						
05...	0900	715	24.5	169	326	97
SEP						
05...	0900	758	19.5	536	1100	95

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

WATER-QUALITY RECORDS

LOCATION.--Lat 31°05'05", long 105°36'25", Hudspeth County, Hydrologic Unit 13040201, at gaging station on the rectified channel of the Rio Grande, 1.5 mi downstream from Old Fort Quitman, and 81.7 mi downstream from the American Dam at El Paso.

DRAINAGE AREA.--31,990 mi^2 approximately, United States and Mexico; from International Boundary and Water Commission Bulletin No. 46 (excluding 2,940 mi^2 in closed basin in San Luis Valley, Co).

PERIOD OF RECORD.--Water years 1930 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to 1981.
WATER TEMPERATURES: October 1974 to 1981.

REMARKS.--Records of discharge are given in International Boundary and Water Commission Water Bulletins.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)
NOV 02...	1000	240	3850	3690	7.9	8.0	23.5	18.0	90	7.4
JAN 05...	1000	155	3650	3520	8.0	7.6	7.5	7.5	19	8.2
MAR 02...	0900	60	5600	6150	8.0	7.9	11.0	8.0	8.3	9.7
MAY 05...	1000	57	5800	5150	8.2	7.7	22.5	17.5	120	6.7
JUL 06...	1000	E69	5800	5210	8.2	7.4	29.0	24.0	120	7.6
SEP 06...	1000	123	3600	3620	--	8.1	22.0	22.0	500	6.6

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
NOV 02...	680	430	190	50	550	10	12	620	750
JAN 05...	670	390	190	47	530	9	14	600	690
MAR 02...	1000	810	280	84	980	14	11	980	1400
MAY 05...	970	740	260	76	860	12	12	920	1200
JUL 06...	1000	810	280	79	830	12	15	990	1300
SEP 06...	690	470	200	46	600	10	9.2	620	710

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 02...	.80	27	2520	2400	2.2	.290	1.20	.780	--
JAN 05...	.70	28	2270	2300	1.3	6.00	2.30	1.40	--
MAR 02...	.80	14	4080	3900	.11	.070	.140	.070	--
MAY 05...	.80	17	3670	3500	<.10	.040	.290	.170	--
JUL 06...	.80	26	3720	3700	<.10	.110	.420	.240	--
SEP 06...	.90	25	2330	2400	.76	.090	.930	.250	30

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
NOV 02...	1000	20	10	100	<10	1	<1	1	4	70	6
MAY 05...	1000	20	5	<100	10	<1	1	<1	<1	60	<1
JUL 06...	1000	460	5	<100	<10	1	<1	1	4	620	<1
SEP 06...	1000	40	8	200	<10	1	<1	<1	4	50	4

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV 02...	230	30	.2	10	7	1	<1	3400	13	40
MAY 05...	300	90	<.1	17	<1	<1	<1	5000	19	10
JUL 06...	300	220	.4	13	3	<1	<1	4600	24	30
SEP 06...	200	10	<.1	13	3	<1	<1	3100	23	70

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 02...	1000	210	390
JAN 05...	1000	4600	17000
MAR 02...	0900	47	220
MAY 05...	1000	290	1100
JUL 06...	1000	330	1200
SEP 06...	1000	560	6800

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 02...	1000	240	18.0	355	230	68
JAN 05...	1000	155	7.5	120	50	52
MAR 02...	0900	60	8.0	26	4.2	72
MAY 05...	1000	57	17.5	209	32	96
JUL 06...	1000	E69	24.0	159	--	84
SEP 06...	1000	123	22.0	814	270	95

08377900 RIO MORA NEAR TERRERO, NM
(Hydrologic bench-mark station)

LOCATION.--Lat 35°46'38", long 105°39'27", in E NE¼ sec.22, T.18 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 450 ft upstream from bridge on State Highway 63, 600 ft upstream from mouth, and 2.6 mi north of Terrero.

DRAINAGE AREA.--53.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,890 ft, from topographic map.

REMARKS.--Water-discharge records good except those for winter period, which are poor. About 90 percent of the drainage is in the Pecos Wilderness Area and not subject to development, watershed management, or the building of highways; there is limited cattle grazing by permit.

AVERAGE DISCHARGE.--21 years, 31.0 ft^3/s, 21,660 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft^3/s June 8, 1979, gage height, 4.15 ft; minimum determined, 0.90 ft^3/s Jan. 12-14, 1964, but may have been less during periods of ice effect.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since 1886 probably occurred Sept. 29, 1904 (based on statement for Pecos River near Pecos and history of that flood period).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 23	2200	297	2.84	Aug. 15	2145	119	2.12

Minimum discharge, 3.5 ft^3/s Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	9.7	8.2	12	7.0	6.9	11	34	93	22	17	32
2	16	9.4	8.0	9.0	7.4	7.0	9.0	37	86	22	19	30
3	13	9.6	7.9	8.1	7.2	7.1	9.6	45	77	22	30	30
4	13	9.4	7.8	8.1	7.3	6.7	10	65	70	20	24	27
5	12	9.5	7.7	8.4	7.2	6.8	15	76	67	20	30	26
6	12	9.3	7.6	3.7	7.1	6.2	13	83	63	19	26	23
7	12	8.9	7.4	8.7	7.2	5.8	10	94	55	18	32	22
8	12	9.5	7.3	8.7	7.4	5.3	11	96	49	17	28	20
9	13	8.7	7.2	8.7	6.8	6.0	12	112	45	16	30	19
10	12	8.6	7.0	8.7	6.7	7.4	13	139	41	16	28	18
11	11	9.5	6.9	8.4	6.4	7.0	14	174	38	18	26	18
12	11	8.9	6.8	6.8	5.4	6.7	30	205	35	18	26	17
13	11	15	6.6	6.5	5.8	7.0	33	207	34	15	30	16
14	11	14	6.6	6.3	6.7	9.6	37	215	38	14	30	17
15	10	14	6.5	6.1	6.7	9.2	14	251	38	14	43	17
16	10	14	6.6	6.0	6.4	18	44	281	33	21	62	16
17	10	8.3	6.5	5.9	6.3	17	55	265	31	22	46	16
18	10	8.8	6.4	5.8	6.5	15	68	243	31	20	41	17
19	9.8	7.5	6.4	5.8	5.8	13	72	229	36	18	43	14
20	12	7.2	6.4	5.7	6.0	11	68	223	39	16	57	16
21	11	9.3	7.3	5.6	6.0	10	51	238	31	15	44	13
22	12	6.6	6.4	5.6	6.0	10	43	253	29	15	40	13
23	11	8.4	6.3	5.4	6.0	10	39	273	28	14	58	12
24	11	9.8	6.2	5.3	6.0	11	44	276	28	13	54	12
25	10	14	6.2	5.3	6.0	11	58	254	29	13	51	14
26	9.7	9.5	6.2	5.2	5.9	11	56	224	27	12	48	14
27	9.3	9.0	6.2	5.9	5.8	11	46	186	28	12	47	16
28	10	8.8	6.2	6.4	5.4	11	40	151	26	13	42	12
29	9.5	8.4	6.2	6.6	6.0	12	37	127	24	17	39	12
30	9.7	8.4	6.2	6.6	---	9.8	33	114	23	18	36	11
31	9.6	---	20	6.8	---	9.4	---	101	---	16	34	---
TOTAL	348.6	292.0	225.2	217.1	186.4	294.9	995.6	5271	1272	526	1161	540
MEAN	11.2	9.73	7.26	7.00	6.43	9.51	33.2	170	42.4	17.0	37.5	18.0
MAX	16	15	20	12	7.4	18	72	281	93	22	62	32
MIN	9.3	6.6	6.2	5.2	5.4	5.3	9.0	34	23	12	17	11
AC-FT	691	579	447	431	370	585	1970	10460	2520	1040	2300	1070

CAL YR 1983 TOTAL 18823.7 MEAN 51.6 MAX 375 MIN 5.7 AC-FT 37340
WTR YR 1984 TOTAL 11329.8 MEAN 31.0 MAX 281 MIN 5.2 AC-FT 22470

08377900 RIO MORA NEAR TERRERO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
NOV 29...	1400	8.4	104	129	8.1	7.8	2.0	8.0	.30	10.4
JAN 26...	1300	5.1	130	129	7.5	7.8	2.5	.5	.60	11.3
MAY 30...	1300	110	--	60	7.6	7.8	25.0	9.5	2.9	8.3
AUG 28...	1300	42	64	75	7.3	7.4	24.0	11.0	1.0	9.6

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 29...	62	0	21	2.2	1.8	.1	.50	74	.000	12
JAN 26...	59	4	20	2.3	3.9	.2	.80	68	.000	12
MAY 30...	26	8	8.7	1.0	1.0	.0	.50	22	.000	6.4
AUG 28...	35	5	12	1.2	1.0	.0	.60	37	.000	6.0

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV 29...	.90	.20	6.6	77	82	<.10	.010	.010	.020
JAN 26...	1.0	.20	6.2	76	80	<.10	.050	<.010	<.010
MAY 30...	.70	.10	5.3	31	35	<.10	.030	.020	<.010
AUG 28...	.90	.10	5.3	50	46	3.6	.410	.020	.010

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
NOV 29...	1400	<10	<1	31	.8	<1	1	<3	1	7	1
MAY 30...	1300	40	<1	20	2.0	1	<1	<3	6	34	<1
AUG 28...	1300	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 29...	5	2	<.1	<10	8	<1	<1	48	<6	6
MAY 30...	8	2	<.1	<10	3	<1	<1	22	<6	14
AUG 28...	--	--	--	--	--	--	--	40	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
NOV 29...	1400	<1.8	<.4	.9	<.4	.8	<.4	.04	.35

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 29...	1400	0	36
JAN 26...	1300	0	25
MAY 30...	1300	K0	K17

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 29...	1400	8.4	8.0	56	1.3	94
JAN 26...	1300	5.1	.5	1	.01	--
MAY 30...	1300	110	9.5	11	3.3	84
AUG 28...	1300	42	11.0	4	.45	95

08378500 PECOS RIVER NEAR PECOS, NM

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¼NE¼ sec.17, T.17 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 30 ft downstream from bridge on private road, 270 ft upstream from Indian Creek, 2.4 mi downstream from Holy Ghost Creek, 9.0 mi north of Pecos, and at mile 896.6.

DRAINAGE AREA.--189 mi^2.

PERIOD OF RECORD.--August 1919 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Cowles" 1919-25, "at Irvins Ranch" 1926-29, and as "at Irvins Ranch near Pecos" 1930-39.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1312: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1977, at site 30 ft upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 75 acres, 1959 determination, above station. Several observations of water temperature were made during the year. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--65 years, 98.3 ft^3/s, 71,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,500 ft^3/s Sept. 21 or 22, 1929, gage height, 6.2 ft, from floodmark, from rating curve extended above 1,600 ft^3/s; minimum, 2.0 ft^3/s Mar. 19, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft^3/s at 2200 hours May 24, gage height, 3.81 ft, no other peak above base of 310 ft^3/s; minimum, 12 ft^3/s Feb. 27-Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	37	29	34	24	12	41	109	471	120	61	78
2	65	35	28	37	24	12	38	119	439	114	66	75
3	56	35	28	39	24	13	40	134	400	113	89	75
4	52	34	28	40	24	16	40	179	361	107	73	69
5	49	34	27	38	23	26	57	211	365	103	86	66
6	50	34	26	35	23	30	77	242	344	99	78	63
7	48	33	25	33	23	35	81	280	289	96	115	58
8	46	34	29	31	22	37	73	286	261	88	85	55
9	53	33	28	30	22	31	85	328	239	83	83	52
10	48	33	27	29	21	25	80	399	223	82	77	49
11	45	35	26	28	21	24	95	490	214	83	73	48
12	44	34	26	27	20	26	91	568	208	90	74	49
13	43	34	25	26	21	26	97	591	205	78	86	47
14	43	33	24	25	23	31	108	613	220	76	88	47
15	42	27	24	24	25	34	116	655	236	78	104	48
16	41	32	23	23	22	37	130	808	212	100	134	47
17	41	31	22	20	20	38	158	742	197	105	106	47
18	41	34	21	19	20	41	195	665	189	92	94	51
19	40	31	20	18	19	38	210	597	213	83	94	43
20	46	30	19	18	19	37	207	597	217	75	132	44
21	47	36	19	19	19	44	161	667	180	68	100	46
22	45	28	18	21	19	53	134	736	168	67	96	47
23	43	27	18	23	19	45	124	808	159	64	133	42
24	41	44	18	24	19	40	138	885	162	62	129	41
25	40	37	18	24	19	44	175	860	157	63	117	39
26	39	34	18	24	15	39	173	784	147	58	109	51
27	37	33	18	24	12	43	146	697	153	57	107	60
28	40	31	18	24	12	41	128	624	141	58	105	48
29	37	30	19	25	12	42	118	561	132	66	98	44
30	38	29	24	25	---	41	106	523	126	67	92	41
31	37	---	28	24	---	40	---	491	---	62	83	---
TOTAL	1394	992	721	831	586	1041	3422	16249	7028	2557	2967	1570
MEAN	45.0	33.1	23.3	26.8	20.2	33.6	114	524	234	82.5	95.7	52.3
MAX	65	44	29	40	25	53	210	885	471	120	134	78
MIN	37	27	18	18	12	12	38	109	126	57	61	39
AC-FT	2760	1970	1430	1650	1160	2060	6790	32230	13940	5070	5890	3110

CAL YR 1983 TOTAL 61638 MEAN 169 MAX 1120 MIN 18 AC-FT 122300
WTR YR 1984 TOTAL 39358 MEAN 108 MAX 885 MIN 12 AC-FT 78070

08379500 PECOS RIVER NEAR ANTON CHICO, NM

LOCATION.--Lat 35°10'44", long 105°06'30", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 2.1 mi upstream from Canon Blanco, 2.3 mi southeast of Anton Chico, 9.7 mi downstream from Tecolote Creek, and at mile 808.0.

DRAINAGE AREA.--1,050 mi^2, approximately (contributing area).

PERIOD OF RECORD.--April 1910 to May 1916, October 1916 to September 1924, August to December 1925, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1342: 1951(M), 1952-53. WSP 1512: 1912-14, 1931, 1933(M), 1935-36(M), 1938(P), 1939-40, 41-42(P), 1945(M), 1946(P), 1949(P). WSP 1712: 1942(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft from river-profile map. See WSP 1732 for history of changes prior to June 21, 1951.

REMARKS.--Records good. Diversions above station for irrigation of about 4,900 acres, 1959 determination, above and below station. Acequia del Bodo Juan Paiz (see table below) diverts water about 8 mi above gage and bypasses this station on left bank; ditch flow not included in record. Discharge measurements made at point opposite regular gage. A portion of this flow may be returned to the river about 5.0 mi downstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--71 years (1910-15, 1916-24, 1926-84), 128 ft^3/s , 92,740 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft^3/s June 1, 1937, gage height, 20.34 ft, from floodmarks, at site and datum then in use, by slope-area measurement; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1879 occurred Sept. 29, 1904, discharge about 73,000 ft^3/s, from information by a local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 5	2230	4300	8.40	Aug. 23	2400	3240	7.72
Aug. 22	0645	5030	8.84	Sept. 14	1700	*7240	10.08

Minimum discharge, 0.50 ft^3/s Dec. 17.

Discharge measurements, in cubic feet per second, of Acequia del Bodo Juan Paiz, Water Year October 1983 to September 1984

Oct. 13	22	Jan. 12	0	Apr. 10	0	July 11	32
Nov. 10	35	Feb. 15	27	May 16	45	Aug. 9	54
Dec. 14	12	Mar. 15	0	June 14	50	Sept. 12	0

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	28	15	127	27	29	57	92	429	65	17	47
2	13	28	21	110	28	30	52	78	449	348	17	41
3	11	26	22	76	28	30	53	80	639	113	66	31
4	11	28	20	80	28	31	46	92	390	84	53	22
5	13	31	17	38	28	33	46	130	338	293	442	14
6	13	30	14	45	31	33	51	174	344	289	181	14
7	15	32	11	44	30	26	70	207	304	59	121	14
8	15	28	14	40	29	26	98	245	248	44	114	13
9	15	7.5	19	37	30	29	94	244	218	30	51	12
10	20	6.1	20	36	31	30	103	275	194	25	35	12
11	23	8.1	21	40	28	28	106	352	170	23	24	11
12	24	16	19	35	26	30	114	437	147	23	14	10
13	20	17	18	18	4.2	31	116	492	113	24	116	8.6
14	20	15	16	1.7	1.7	28	102	503	231	11	79	762
15	18	16	9.8	4.2	1.5	30	96	553	208	10	57	133
16	19	15	13	26	1.2	30	102	690	246	7.7	36	83
17	19	14	11	99	1.0	31	98	786	197	165	68	99
18	18	13	22	125	.82	35	121	701	163	138	52	137
19	13	15	24	74	.67	37	192	629	142	47	34	66
20	27	16	28	38	2.3	39	230	591	147	31	26	44
21	36	16	41	36	1.7	37	232	587	182	19	45	28
22	36	14	184	50	2.2	37	179	624	134	17	605	22
23	33	17	177	40	1.2	45	140	675	133	17	528	22
24	30	15	136	29	1.1	57	108	756	161	16	678	22
25	28	15	82	25	.98	50	96	772	249	16	132	22
26	26	16	77	33	.84	42	145	733	111	17	105	22
27	26	18	88	31	16	51	185	664	85	17	86	20
28	28	17	185	31	32	60	171	609	84	17	75	19
29	28	14	130	32	27	57	167	553	85	17	82	17
30	27	13	114	29	---	47	110	511	59	16	66	16
31	26	---	135	28	---	55	---	466	---	16	60	---
TOTAL	664	544.7	1703.8	1457.9	440.41	1154	3480	14301	6600	2014.7	4065	1783.6
MEAN	21.4	18.2	55.0	47.0	15.2	37.2	116	461	220	65.0	131	59.5
MAX	36	32	185	127	32	60	232	786	639	348	678	762
MIN	11	6.1	9.8	1.7	.67	26	46	78	59	7.7	14	8.6
AC-FT	1320	1080	3380	2890	874	2290	6900	28370	13090	4000	8060	3540

CAL YR 1983 TOTAL 68222.30 MEAN 187 MAX 1060 MIN 3.8 AC-FT 135300
WTR YR 1984 TOTAL 38209.11 MEAN 104 MAX 786 MIN .67 AC-FT 75790

08380500 GALLINAS CREEK NEAR MONTEZUMA, NM

LOCATION.--Lat 35°39'07", long 105°19'06", San Miguel County, Hydrologic Unit 13060001, in Las Vegas Grant, on left bank 2.4 mi west of Montezuma, 6.9 mi northwest of Las Vegas, and at mile 74.4.

DRAINAGE AREA.--84 mi^2, approximately.

PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1562: 1951(P), 1952(M), 1955(P), 1957. WSP 1632: 1931-32, 1933(M), 1934, 1935(M), 1938, 1939-40(M), 1941-42, 1945, 1949-50(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,875 ft, from topographic map. Prior to Sept. 21, 1934, at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 80 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--68 years, 19.0 ft^3/s, 13,770 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft^3/s Aug. 2, 1966, gage height, 9.7 ft, from floodmarks, from rating curve extended above 500 ft^3/s on basis of slope-area measurements at gage heights 5.25 ft, 8.25 ft, and 9.7 ft; minimum, 0.20 ft^3/s, Oct. 6-9, 1922, Sept. 21, Oct. 9-14, 1956, Dec. 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1900 occurred the night of Sept. 29, 1904 (discharge not determined), from information by local residents and G. B. Monk's report on floods.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 16	1615	265	2.80	June 14	2345	*554	3.54

Minimum discharge, 1.8 ft^3/s Oct. 8, may have been less during ice period.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.2	5.8	6.4	5.8	4.7	10	15	16	13	6.0	5.1
2	4.9	4.7	6.0	6.2	6.2	4.5	9.9	16	16	13	7.9	4.7
3	4.6	4.5	5.3	5.6	6.6	4.6	8.8	18	17	15	11	4.8
4	3.9	4.3	4.8	6.0	6.2	4.8	9.4	22	14	12	8.3	5.1
5	3.6	4.4	5.2	6.6	5.6	5.0	12	28	13	10	7.8	4.5
6	3.5	4.3	5.2	6.6	5.8	5.2	17	31	13	11	7.7	4.1
7	3.5	3.6	5.2	6.6	6.0	5.4	19	34	11	9.1	8.0	3.5
8	3.2	3.7	5.0	6.8	6.2	5.7	20	32	9.7	7.9	9.2	3.0
9	4.7	4.5	4.8	6.8	6.4	5.1	23	31	9.2	7.0	9.2	2.8
10	4.7	4.4	4.5	6.4	6.6	5.4	21	36	8.3	6.6	8.4	2.8
11	4.2	4.5	4.5	5.8	6.0	4.9	23	41	6.8	6.4	7.5	2.6
12	4.3	4.4	4.5	5.6	5.4	4.6	23	44	6.1	7.8	9.5	2.4
13	4.4	3.5	4.4	5.2	5.4	5.0	23	46	11	6.8	11	2.4
14	4.1	3.5	4.8	5.0	5.2	5.4	23	46	45	5.8	9.9	2.4
15	4.1	3.9	5.0	4.6	4.8	6.5	22	50	80	5.4	8.5	4.2
16	4.1	4.0	5.4	4.6	4.5	7.6	22	127	18	6.0	21	5.5
17	3.9	4.3	6.0	4.6	4.6	8.1	25	97	13	9.8	11	5.6
18	4.2	4.5	5.4	4.5	4.3	7.8	30	79	11	7.7	8.9	6.7
19	4.2	4.6	5.0	4.5	4.6	6.7	33	65	12	7.2	7.4	5.3
20	6.2	4.6	4.8	4.5	4.5	7.4	33	54	15	5.9	7.5	4.3
21	6.8	4.5	4.6	5.4	4.7	7.5	26	50	11	5.0	6.7	4.1
22	6.2	4.4	4.5	5.2	5.0	8.8	22	48	9.5	4.5	11	4.8
23	5.5	4.4	4.3	5.0	4.6	8.5	20	47	8.6	4.1	9.7	3.7
24	5.1	4.7	4.1	5.2	4.2	7.2	18	47	12	4.3	8.4	3.8
25	4.8	4.9	5.0	5.6	4.7	8.5	22	44	20	4.1	7.5	3.5
26	3.7	4.7	6.0	5.6	4.3	7.5	23	38	14	4.3	6.5	3.6
27	4.3	5.4	5.8	5.8	4.2	7.8	20	34	13	4.4	6.8	4.9
28	4.9	5.4	4.6	6.0	5.0	6.4	19	28	12	4.4	9.8	5.2
29	4.8	5.6	3.8	6.0	4.8	8.0	17	25	10	6.3	8.5	4.8
30	4.6	5.6	5.2	5.8	---	9.8	15	22	8.6	5.5	6.8	4.9
31	3.9	---	6.6	5.6	---	8.7	---	19	---	5.7	5.5	---
TOTAL	139.1	134.0	156.1	174.1	152.2	203.1	609.1	1314	463.8	226.0	272.9	125.1
MEAN	4.49	4.47	5.04	5.62	5.25	6.55	20.3	42.4	15.5	7.29	8.80	4.17
MAX	6.8	5.6	6.6	6.8	6.6	9.8	33	127	80	15	21	6.7
MIN	3.2	3.5	3.8	4.5	4.2	4.5	8.8	15	6.1	4.1	5.5	2.4
AC-FT	276	266	310	345	302	403	1210	2610	920	448	541	248

CAL YR 1983 TOTAL 8613.6 MEAN 23.6 MAX 120 MIN 3.2 AC-FT 17090
WTR YR 1984 TOTAL 3969.5 MEAN 10.8 MAX 127 MIN 2.4 AC-FT 7870

BEST COPY AVAILABLE

08382500 GALLINAS RIVER NEAR COLONIAS, NM

LOCATION.--Lat 35°10'55", long 104°53'59", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico and Preston Beck Grants, on right bank 2.3 mi south of San Miguel-Guadalupe County line, 2.4 mi upstream from mouth, 5.8 mi northwest of Colonias, and 9.0 mi east of Dilia. Mouth at Pecos River mile 789.2.

DRAINAGE AREA.--610 mi^2, approximately.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,944 ft from topographic map.

REMARKS.--Records good. Diversions for irrigation of about 7,000 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 15.7 ft^3/s, 11,370 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,700 ft^3/s July 11, 1982, gage height, 19.67 ft, from rating curve extended above 1,900 ft^3/s on basis of slope-area measurements at gage heights 8.64 ft, 12.74 ft, 16.65 ft, and 27.2 ft; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about June 1, 1937, reached a stage of about 27.2 ft; discharge determined as 26,700 ft^3/s by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,200 ft^3/s Sept. 14, gage height, 8.51 ft, no other peak above base of 1,700 ft^3/s; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	3.2
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	2.1	1.9
3	.00	.00	.00	.00	.00	.00	.00	.00	210	49	224	1.3
4	.00	.00	.00	.00	.00	.00	.00	.00	45	37	226	5.4
5	.00	.00	.00	.00	.00	.00	.00	.00	28	15	92	8.4
6	.00	.00	.00	.00	.00	.00	.00	.00	17	44	49	3.1
7	.00	.00	.00	.00	.00	.00	.00	.00	13	30	16	1.0
8	.00	.00	.00	.00	.00	.00	.00	.00	7.8	12	52	.38
9	.00	.00	.00	.00	.00	.00	.00	.00	5.1	4.2	25	.10
10	.00	.00	.00	.00	.00	.00	.00	.00	2.0	2.1	13	.01
11	.00	.00	.00	.00	.00	.00	.00	.00	.47	12	7.9	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.07	11	6.0	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.05	11	3.8	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.5	2.9	237
15	.00	.00	.00	.00	.00	.00	.00	.00	13	1.1	20	163
16	.00	.00	.00	.00	.00	.00	.00	.00	87	.23	12	17
17	.00	.00	.00	.00	.00	.00	.00	.00	38	.03	6.1	5.7
18	.00	.00	.00	.00	.00	.00	.00	.00	21	.00	3.1	6.9
19	.00	.00	.00	.00	.00	.00	.00	1.7	14	1.3	1.7	9.1
20	.00	.00	.00	.00	.00	.00	.00	1.4	7.6	1.8	.91	4.5
21	.00	.00	.00	.00	.00	.00	.00	.18	4.0	.38	.26	1.8
22	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.23	297	.83
23	.00	.00	.00	.00	.00	.00	.00	.00	.96	.07	299	.37
24	.00	.00	.00	.00	.00	.00	.00	.00	.56	.00	47	.10
25	.00	.00	.00	.00	.00	.00	.00	.00	.12	.00	21	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	2.8	.00	24	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	9.0	.00	9.2	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	2.2	.00	5.0	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.49	51	11	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.07	17	13	.58
31	.00	---	.00	.00	---	.00	---	.00	---	3.8	4.4	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	3.28	530.59	309.24	1495.37	471.67
MEAN	.000	.000	.000	.000	.000	.000	.000	.11	17.7	9.98	48.2	15.7
MAX	.00	.00	.00	.00	.00	.00	.00	1.7	210	51	299	237
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	6.5	1050	613	2970	936

CAL YR 1983 TOTAL 1152.69 MEAN 3.16 MAX 131 MIN .00 AC-FT 2290
WTR YR 1984 TOTAL 2810.15 MEAN 7.68 MAX 299 MIN .00 AC-FT 5570

08382600 PECOS RIVER ABOVE CANON DEL UTA NEAR COLONIAS, NM

LOCATION.--Lat 35°05'29", long 104°48'00", in T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 0.4 mi upstream from Canon del Uta, 2.9 mi southeast of Colonias, and at mile 775.8.

DRAINAGE AREA.--2,330 mi^2, approximately.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft, from U.S. Corps of Engineers plans.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation for about 11,800 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 68.6 ft^3/s, 49,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 12,400 ft^3/s June 20, 1982, gage height 10.36 ft, from rating curve extended above 1,200 ft^3/s on basis of discharges transferred from station 5 mi downstream using the relation between peak gage heights at the two stations; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft^3/s at 2300 hours Sept. 14, gage height, 8.96 ft, no other peak above base of 3,000 ft^3/s; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	2.9	1.9	1.3	.58	.20	.00	15	207	19	9.2	10
2	3.8	2.8	1.9	1.3	.58	.18	.00	12	179	389	9.0	4.5
3	3.8	2.8	1.9	1.3	.52	.15	.00	10	490	116	98	4.1
4	3.8	2.9	1.7	1.2	.52	.10	.00	10	294	37	202	4.1
5	3.8	2.8	1.7	1.2	.52	.14	.00	9.6	200	42	272	4.1
6	4.1	2.8	1.7	1.2	.45	.14	.00	14	163	277	358	4.1
7	4.1	2.6	1.7	1.2	.45	.14	.00	52	162	67	130	3.8
8	4.1	2.5	1.8	1.2	.45	.09	.00	92	98	17	67	4.1
9	4.1	2.5	1.8	1.1	.40	.09	.73	107	86	7.7	75	4.1
10	4.1	2.5	1.7	1.1	.39	.09	9.4	130	68	6.9	37	4.0
11	4.1	2.4	1.6	1.1	.34	.09	18	165	48	28	17	3.6
12	3.8	2.3	1.6	1.0	.39	.02	25	234	33	5.0	12	2.9
13	3.8	2.1	1.6	.97	.38	.00	37	329	22	4.7	11	1.7
14	3.8	2.1	1.6	.97	.34	.00	42	359	48	4.5	48	431
15	3.8	2.3	1.6	.97	.32	.00	33	344	109	4.1	53	500
16	4.1	2.2	1.6	.90	.36	.00	33	522	152	4.2	35	26
17	4.4	2.2	1.5	.92	.27	.00	41	625	129	4.7	28	17
18	4.4	2.1	1.5	.90	.27	.00	40	699	80	161	42	99
19	4.4	2.3	1.5	.90	.32	.00	62	580	59	40	22	83
20	4.2	1.9	1.5	.90	.32	.04	107	559	58	9.4	20	30
21	4.1	2.0	1.4	.84	.27	.04	137	507	63	7.0	24	21
22	3.8	2.0	1.4	.84	.27	.04	133	529	63	7.0	542	15
23	3.8	2.0	1.4	.84	.27	.04	92	600	32	7.2	708	15
24	3.8	2.0	1.4	.78	.27	.04	52	691	64	7.6	620	15
25	3.5	2.0	1.4	.78	.20	.02	22	669	77	7.9	180	15
26	3.5	2.0	1.2	.71	.24	.00	19	626	66	7.8	271	15
27	3.1	2.0	1.2	.71	.27	.00	74	573	23	8.4	54	14
28	3.1	2.0	1.3	.71	.27	.00	86	489	20	8.7	36	9.0
29	3.1	1.9	1.4	.64	.22	.00	86	427	20	9.1	28	9.0
30	3.1	1.9	1.4	.64	---	.00	50	350	20	9.0	35	9.0
31	3.1	---	1.3	.64	---	.00	---	270	---	9.2	18	---
TOTAL	118.3	68.8	48.2	29.76	10.45	1.65	1199.13	10598.6	3133	1333.1	4061.2	1378.1
MEAN	3.82	2.29	1.55	.96	.36	.053	40.0	342	104	43.0	131	45.9
MAX	4.4	2.9	1.9	1.3	.58	.20	137	699	490	389	708	500
MIN	3.1	1.9	1.2	.64	.20	.00	.00	9.6	20	4.1	9.0	1.7
AC-FT	235	136	96	59	21	3.3	2380	21020	6210	2640	8060	2730

CAL YR 1983 TOTAL 41092.86 MEAN 113 MAX 966 MIN .00 AC-FT 81510
WTR YR 1984 TOTAL 21980.29 MEAN 60.1 MAX 708 MIN .00 AC-FT 43600

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°03'35", long 104°45'41", in NE¼SE¼SE¼ sec.25, T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, at south boundary Preston Beck Grant, on left bank, 1.6 mi upstream from River Ranch, 5.8 miles southeast of Colonias, 9.1 miles northwest of Santa Rosa, and at mile 770.8.

DRAINAGE AREA.--2,340 mi^2, approximately.

PERIOD OF RECORD.--February 1976 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 4,760 ft, from surveys by U.S. Corps of Engineers.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 11,800 acres, 1959 determination, above station. Several observation of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years, 88.2 ft^3/s, 63,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft^3/s June 21, 1982, gage height 14.50 ft from manometer gage, 15.33 ft from floodmarks, from rating curve extended above 1,500 ft^3/s, on basis of slope-area measurement of peak flow; minimum 2.9 ft^3/s Aug. 21, 1984.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 3,000 ft^3/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 22	1315	4540	10.15	Sept. 14	2345	*10500	13.80
Aug. 24	0615	3540	9.20				

Minimum discharge, 2.9 ft^3/s Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	21	19	18	16	13	32	244	27	23	33
2	22	25	22	19	18	16	14	17	223	415	19	22
3	22	24	23	18	18	16	13	14	706	167	129	20
4	22	25	21	19	18	16	13	14	298	65	376	20
5	22	25	21	18	18	17	13	13	215	61	476	20
6	22	24	21	18	18	16	13	17	178	388	566	19
7	22	23	21	18	18	16	14	53	180	100	168	19
8	23	23	21	18	18	16	12	83	136	42	70	23
9	23	23	21	18	18	16	12	118	109	35	86	22
10	22	23	21	18	17	16	21	118	90	35	46	21
11	24	22	21	18	17	16	26	149	72	63	25	23
12	23	22	20	18	17	16	33	214	54	32	18	32
13	23	22	21	18	17	16	40	281	43	29	14	23
14	23	22	20	19	16	16	48	302	50	35	57	1040
15	22	23	21	19	17	16	43	301	137	33	62	1870
16	22	23	21	18	17	15	40	451	156	21	37	141
17	23	23	20	18	17	16	46	637	146	23	24	57
18	22	23	20	18	17	15	45	602	63	316	37	82
19	26	23	20	18	17	15	70	480	63	102	33	98
20	24	23	20	18	17	15	123	411	66	36	23	40
21	22	23	20	18	17	15	143	361	52	26	15	33
22	21	23	20	18	17	16	145	357	65	22	1120	37
23	22	23	19	18	16	16	102	413	35	28	1340	35
24	21	23	19	18	15	15	64	549	43	27	1340	37
25	21	23	21	17	16	14	37	667	73	23	352	36
26	21	23	19	17	16	15	26	645	107	24	480	37
27	24	23	19	17	15	15	67	501	45	21	119	31
28	26	22	20	18	15	14	84	386	31	24	77	25
29	25	22	19	18	16	14	83	344	29	21	75	25
30	25	21	20	18	---	14	66	301	30	21	67	25
31	25	---	20	18	---	14	---	268	---	20	43	---
TOTAL	708	692	633	560	491	479	1469	9109	3739	2282	7317	3946
MEAN	22.8	23.1	20.4	18.1	16.9	15.5	49.0	294	125	73.6	236	132
MAX	26	25	23	19	18	17	145	667	706	415	1340	1870
MIN	21	21	19	17	15	14	12	13	29	20	14	19
AC-FT	1400	1370	1260	1110	974	950	2910	18070	7420	4530	14510	7830

CAL YR 1983 TOTAL 49646 MEAN 136 MAX 1030 MIN 12 AC-FT 98470
WTR YR 1984 TOTAL 31425 MEAN 85.9 MAX 1870 MIN 12 AC-FT 62330

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
NOV 09...	1200	24	800	756	8.1	7.9	8.0	14.5	9.4	<10	450
JAN 11...	1230	19	1030	--	8.3	--	10.0	9.0	9.7	--	--
MAR 14...	1015	17	900	985	8.2	7.9	20.5	13.0	9.2	--	530
MAY 18...	1700	553	120	196	7.8	7.7	21.0	19.0	--	--	86
JUL 12...	1100	25	750	779	8.2	8.2	31.5	26.0	6.7	23	420
SEP 11...	1430	23	810	--	8.1	--	32.0	27.0	7.2	--	--

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
NOV 09...	360	150	18	9.3	.2	1.3	--	--	320	4.4	.30
JAN 11...	--	--	--	--	--	--	--	--	--	--	--
MAR 14...	380	180	20	9.5	.2	1.1	--	--	400	5.1	.30
MAY 18...	16	30	2.8	2.2	.1	1.0	--	--	21	1.3	.20
JUL 12...	280	140	16	8.8	.2	2.3	--	--	280	3.9	.30
SEP 11...	--	--	--	--	--	--	140	8.0	--	--	--

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 09...	10	570	.20	.20	.040	.36	.60	<.010	.010	.50
JAN 11...	--	--	--	--	--	--	--	--	--	--
MAR 14...	11	720	--	--	--	--	--	--	--	--
MAY 18...	7.5	110	--	--	--	--	--	--	--	--
JUL 12...	11	550	.20	.19	.030	.47	.70	.100	.010	2.8
SEP 11...	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV 09...	1200	<1	1	30	<1	<1	<10	<10	4	<1
MAR 14...	1015	--	--	40	--	--	--	--	--	--
MAY 18...	1700	--	--	<10	--	--	--	--	--	--
JUL 12...	1100	--	--	30	--	--	--	--	--	--

08382650 PECOS RIVER ABOVE SANTA ROSA LAKE, NM -- Continued

WATER QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 09...	6	4	<1	<.1	<.1	1	1	20	7
MAR 14...	8	--	--	--	--	--	--	--	--
MAY 18...	41	--	--	--	--	--	--	--	--
JUL 12...	8	--	--	--	--	--	--	--	--

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV 09...	1200	<22	<.4	<7.9	.4	<6.5	.4	.06	1.6

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 09...	1200	24	14.5	68	4.4	85
JAN 11...	1230	19	9.0	8	.42	52
MAR 14...	1015	17	13.0	137	6.3	97
JUL 12...	1100	25	26.0	149	10	95
SEP 11...	1430	23	27.0	28	1.7	30

08382730 LOS ESTEROS CREEK ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°05'42", long 104°39'49", Guadalupe County, Hydrologic Unit 13060001 in Preston-Beck Grant, on left bank, 3.7 mi upstream from mouth, 4.9 mi north-northeast of Santa Rosa Dam, and 10.4 mi north-northeast of Santa Rosa. Mouth at Pecos River mile 763.0.

DRAINAGE AREA.--65.6 mi^2.

PERIOD OF RECORD.--July 1973 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,767 ft, from topographic map.

REMARKS.--Records good. No known diversions or groundwater withdrawals for irrigation above station. Several observations of water temperature were made during the period.

AVERAGE DISCHARGE.--11 years, 1.35 ft^3/s, 978 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft^3/s July 24, 1976, gage height 9.3 ft from rating curve extended above 70 ft^3/s on basis of velocity-area studies, and slope-area measurements at gage heights 6.5 ft and 9.3 ft; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood of unknown date reached a discharge of about 6,800 ft^3/s, gage height 11.6 ft, from floodmarks, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*), from rating curve extended as explained above:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
July 10	1730	149	3.43	Sept. 14	2100	*1190	6.09
Aug. 13	2230	1010	5.78				

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	8.5	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.84	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.7	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	128	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	102	148
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	53
16	.00	.00	.00	.00	.00	.00	.00	.00	1.6	.00	.13	1.7
17	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00	.00	.26
18	.00	.00	.00	.00	.00	.00	.00	4.8	.05	.00	.00	.08
19	.00	.00	.00	.00	.00	.00	.00	.44	.01	.00	.00	.02
20	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8.4	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	5.32	11.59	6.84	241.07	203.06
MEAN	.000	.000	.000	.000	.000	.000	.000	.17	.39	.22	7.78	6.77
MAX	.00	.00	.00	.00	.00	.00	.00	4.8	8.5	6.7	128	148
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	11	23	14	478	403

CAL YR 1983 TOTAL 29.94 MEAN .082 MAX 14 MIN .00 AC-FT 59
WTR YR 1984 TOTAL 467.88 MEAN 1.28 MAX 148 MIN .00 AC-FT 928

08382760 LOS ESTEROS CREEK TRIBUTARY ABOVE SANTA ROSA LAKE, NM

LOCATION.--Lat 35°05'35", long 104°40'20", Preston-Beck Grant, Guadalupe County, Hydrologic Unit 13060001, 0.5 mi west-southwest of Los Esteros Creek gage, 0.8 mi above confluence with Los Esteror Creek, 4.6 mi north-northeast of Santa Rosa Dam, and 10.2 mi north-northeast of Santa Rosa.

DRAINAGE AREA.--13.7 mi^2.

PERIOD OF RECORD.--July 1973 to current year. Prior to October 1979, published as "above Los Esteros Reservoir."

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,758 ft, from topographic map.

REMARKS.--Records good. No known diversions or groundwater withdrawals for irrigation above station. Several observation of water temperature were made during the period.

AVERAGE DISCHARGE.--11 years, 0.34 ft^3/s, 246 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft^3/s Aug. 29, 1977, gage height, 7.80 ft from rating curve extended above 0.5 ft^3/s on basis of velocity-area studies, and slope-area measurement at gage height 7.80 ft; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 47 ft^3/s July 10, gage height, 1.73 ft, from rating curve extended as explained above, no peak above base of 80 ft^3/s; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.34	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.90
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.35	1.30	.00	1.14
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.012	.042	.000	.038
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.34	1.3	.00	.90
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.7	2.6	.00	2.3

CAL YR 1983 TOTAL 0.12 MEAN .000 MAX .12 MIN .00 AC-FT .2
WTR YR 1984 TOTAL 2.79 MEAN .008 MAX 1.3 MIN .00 AC-FT 5.5

08382810 SANTA ROSA LAKE NEAR SANTA ROSA, NM

LOCATION.--Lat 35°01'47", long 104°41'30", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, near outlet gates of Santa Rosa Dam on Pecos River, approximately 7.0 mi north of Santa Rosa, and at mile 757.2.

DRAINAGE AREA.--2,430 mi^2, approximately.

PERIOD OF RECORDS.--April 1980 to current year.

GAGE.--Nonrecording gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--All record prior to May 13, 1983 is questionable. Lake is formed by earth and rockfill dam on Pecos River. Storage began on Apr. 22, 1980. Capacity 447,100 acre-ft between elevations 4,630.0 ft, invert of outlet structure, and 4,797.0 ft, crest of spillway. No dead storage. Lake was created primarily for flood, irrigation, and sediment control.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 79,450 acre-ft June 9, 1983, elevation 4,738.43 ft; no storage for many days July-Sept., 1980 and June-Aug. 1981.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,920 acre-ft July 20, elevation, 4,716.40 ft; minimum, 2,620 acre-ft Aug. 9, elevation, 4,672.81 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8800	8730	9960	11310	12640	13630	14180	17360	17210	25490	14300	10240
2	8860	8780	10010	11340	12680	13670	14210	17510	17650	26050	12100	10310
3	8920	8830	10060	11360	12760	13670	14260	17610	18060	26430	10140	10410
4	8960	8880	10100	11360	12810	13670	14320	17600	18820	26630	8630	10450
5	9040	8900	10150	11390	12890	13680	14360	17530	19270	26770	7410	10490
6	9110	8930	10180	11430	12930	13690	14360	17440	19720	26960	5920	10530
7	9160	8960	10220	11460	13020	13700	14370	16330	20130	27220	4480	10540
8	9180	9000	10270	11500	13050	13800	14370	14110	20820	27480	2960	10570
9	9220	9050	10310	11540	13100	13840	14390	11730	21550	27710	2620	10610
10	9270	9110	10330	11640	13130	13860	14420	10160	22310	28060	2770	10670
11	9360	9140	10360	11700	13140	13900	14440	7820	22820	28170	2870	10680
12	9420	9170	10380	11760	13160	13920	14470	6420	22930	28220	2970	10720
13	9460	9210	10410	11780	13180	13930	14590	5300	22970	28230	3260	10810
14	9510	9240	10450	11810	13180	13890	14680	4930	23130	28230	3490	11820
15	9550	9270	10480	11840	13220	13840	14770	3780	23330	28230	3610	13500
16	9590	9310	10400	11880	13230	13820	14840	3330	23550	28230	3710	15370
17	9490	9360	10570	11970	13240	13800	14920	2780	23810	28320	3770	16050
18	9300	9410	10740	12050	13260	13790	15010	3560	24150	28480	3820	16230
19	9150	9450	10830	12120	13310	13760	15050	5410	24320	28810	3860	16330
20	9000	9480	10880	12150	13350	13800	15170	8720	24410	28920	3960	16370
21	8780	9530	10920	12180	13460	13830	15330	9840	24580	28900	4010	16400
22	8580	9580	10970	12210	13510	13840	15490	11460	24640	28880	4980	16450
23	8390	9620	11020	12240	13520	13840	15640	12270	24670	28760	6470	16490
24	8340	9640	11070	12270	13520	13840	15710	12700	24690	28780	7450	16530
25	8380	9700	11120	12300	13520	13840	15800	13190	24820	28800	8210	16540
26	8430	9740	11160	12310	13520	13810	16080	13590	24960	27450	9060	16550
27	8480	9780	11200	12330	13520	13890	16430	13990	25120	25000	9710	16640
28	8540	9820	11220	12370	13520	14040	16800	14400	25250	22660	9890	16670
29	8580	9880	11230	12390	13540	14140	17100	15260	25330	20510	9930	16670
30	8630	9920	11250	12420	---	14170	17180	16060	25410	18520	10050	16670
31	8680	---	11280	12530	---	14180	---	16800	---	16620	10160	---
MAX	9590	9920	11280	12530	13540	14180	17180	17610	25410	28920	14300	16670
MIN	8340	8730	9960	11310	12640	13630	14180	2780	17210	16620	2620	10240
(†)	-50	+1240	+1360	+1250	+1010	+640	+3000	-380	+8610	-8790	-6460	+6510

CAL YR 1983 MAX 79450 MIN 6930 (†) -21860
WTR YR 1984 MAX 28920 MIN 2620 (†) +7940

(†) CHANGE IN CONTENTS IN ACRE-FEET.

08382810 SANTA ROSA LAKE NEAR SANTA ROSA, NM -- Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4695.74	4695.61	4697.78	4699.83	4701.62	4702.85	4703.51	4706.95	4706.80	4713.99	4703.65	4698.22
2	4695.86	4695.70	4697.85	4699.87	4701.68	4702.90	4703.54	4707.11	4707.25	4714.40	4700.92	4698.34
3	4695.96	4695.80	4697.93	4699.90	4701.78	4702.90	4703.60	4707.21	4707.65	4714.68	4698.07	4698.49
4	4696.05	4695.89	4698.01	4699.91	4701.84	4702.90	4703.67	4707.20	4708.39	4714.82	4695.43	4698.56
5	4696.18	4695.94	4698.08	4699.94	4701.94	4702.91	4703.71	4707.13	4708.81	4714.92	4692.85	4698.62
6	4696.31	4695.99	4698.13	4700.00	4701.99	4702.93	4703.72	4707.04	4709.23	4715.06	4689.00	4698.67
7	4696.40	4696.04	4698.20	4700.05	4702.10	4702.94	4703.73	4705.89	4709.60	4715.24	4683.93	4698.70
8	4696.45	4696.12	4698.27	4700.10	4702.14	4703.06	4703.73	4703.42	4710.21	4715.42	4675.36	4698.74
9	4696.52	4696.21	4698.33	4700.16	4702.20	4703.10	4703.75	4700.42	4710.85	4715.58	4672.81	4698.80
10	4696.60	4696.31	4698.37	4700.29	4702.24	4703.13	4703.78	4698.10	4711.49	4715.82	4673.97	4698.89
11	4696.76	4696.37	4698.41	4700.38	4702.25	4703.18	4703.81	4693.77	4711.91	4715.90	4674.69	4698.90
12	4696.86	4696.43	4698.45	4700.46	4702.28	4703.20	4703.84	4690.41	4712.00	4715.93	4675.41	4698.97
13	4696.94	4696.49	4698.49	4700.49	4702.30	4703.21	4703.98	4687.05	4712.03	4715.94	4677.44	4699.09
14	4697.02	4696.54	4698.56	4700.53	4702.31	4703.16	4704.08	4685.75	4712.16	4715.94	4678.83	4700.54
15	4697.09	4696.61	4698.60	4700.57	4702.36	4703.10	4704.18	4680.50	4712.32	4715.94	4679.56	4702.70
16	4697.16	4696.68	4698.48	4700.62	4702.37	4703.08	4704.26	4677.88	4712.50	4715.94	4680.14	4704.86
17	4696.99	4696.76	4698.74	4700.74	4702.38	4703.06	4704.36	4674.00	4712.70	4716.00	4680.49	4705.59
18	4696.66	4696.85	4699.00	4700.85	4702.40	4703.04	4704.46	4679.27	4712.97	4716.11	4680.73	4705.79
19	4696.39	4696.91	4699.13	4700.95	4702.46	4703.01	4704.50	4687.43	4713.10	4716.33	4680.97	4705.89
20	4696.11	4696.97	4699.20	4700.99	4702.51	4703.06	4704.63	4695.59	4713.17	4716.40	4681.49	4705.93
21	4695.71	4697.05	4699.27	4701.02	4702.65	4703.09	4704.81	4697.57	4713.30	4716.39	4681.76	4705.97
22	4695.33	4697.14	4699.34	4701.06	4702.71	4703.10	4704.99	4700.05	4713.35	4716.38	4685.92	4706.02
23	4694.95	4697.20	4699.41	4701.11	4702.72	4703.10	4705.15	4701.15	4713.37	4716.30	4690.54	4706.06
24	4694.85	4697.25	4699.48	4701.15	4702.72	4703.10	4705.23	4701.70	4713.39	4716.31	4692.94	4706.10
25	4694.93	4697.34	4699.55	4701.18	4702.72	4703.10	4705.33	4702.32	4713.49	4716.32	4694.58	4706.11
26	4695.03	4697.41	4699.62	4701.20	4702.72	4703.07	4705.63	4702.80	4713.59	4715.40	4696.22	4706.12
27	4695.14	4697.48	4699.67	4701.22	4702.72	4703.16	4706.00	4703.28	4713.71	4713.62	4697.36	4706.22
28	4695.24	4697.55	4699.71	4701.27	4702.72	4703.34	4706.38	4703.76	4713.81	4711.78	4697.66	4706.25
29	4695.33	4697.64	4699.72	4701.30	4702.74	4703.46	4706.69	4704.74	4713.87	4709.94	4697.72	4706.25
30	4695.42	4697.71	4699.75	4701.34	---	4703.49	4706.77	4705.61	4713.93	4708.10	4697.92	4706.25
31	4695.51	---	4699.79	4701.48	---	4703.50	---	4706.38	---	4706.20	4698.10	---
MEAN	4696.05	4696.67	4698.82	4700.64	4702.33	4703.10	4704.53	4697.79	4711.70	4714.75	4687.31	4702.52
MAX	4697.16	4697.71	4699.79	4701.48	4702.74	4703.50	4706.77	4707.21	4713.93	4716.40	4703.65	4706.25
MIN	4694.85	4695.61	4697.78	4699.83	4701.62	4702.85	4703.51	4674.00	4706.80	4706.20	4672.81	4698.22

CAL YR 1983 MEAN 4715.68 MAX 4738.43 MIN 4691.72
WTR YR 1984 MEAN 4701.32 MAX 4716.40 MIN 4672.81

08382830 PECOS RIVER BELOW SANTA ROSA DAM, NM

LOCATION.--Lat 35°01'27", long 104°41'20", Guadalupe County, Hydrologic Unit 13060001, in Jose Perea Grant, on right bank, 0.2 mi downstream from Santa Rosa Dam, 5.7 mi north of Santa Rosa, and at mile 737.0.

DRAINAGE AREA.--2,430 mi^2, approximately.

PERIOD OF RECORD.--January 1980 to current year.

GAGE.--Water-stage recorder. Altitude 4,640 ft from topographic map. Prior to Oct. 31, 1980, at datum about 1.2 ft higher. Prior to Mar. 26, 1982, 195 ft upstream at datum 2.36 ft higher.

REMARKS.--Records good. Flow completely regulated by Santa Rosa Lake (station 08382810) since April 1980. Diversions and groundwater withdrawals for irrigation of about 12,000 acres 1959 determination, above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft^3/s June 26, 1980, gage height about 5.77 ft, present datum; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,160 ft^3/s July 28; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.00	.10	.08	.17	.36	1.1	.97	.08	.08	1080	.00
2	.18	.00	.10	.08	.13	.39	1.1	.97	.45	.08	1060	.00
3	.14	.02	.10	.08	.13	.41	1.0	.97	.31	.08	1040	.00
4	.12	.27	.10	.08	.13	.41	.94	.97	.17	.08	1020	.76
5	.16	.22	.08	.08	.13	.41	.97	.97	.13	.08	986	.27
6	.13	.04	.08	.08	.13	.45	.85	.97	.17	.08	969	.01
7	.13	.05	.08	.08	.13	.46	.77	705	.21	.00	967	.01
8	.08	.08	.08	.08	.13	.46	.76	1010	.21	.00	964	.01
9	.08	.08	.06	.08	.13	.46	.83	995	.26	.00	339	.01
10	.02	.10	.06	.08	.08	.48	.85	975	.31	.42	.35	.01
11	.10	.13	.04	.08	.04	.53	.94	975	2.7	.08	.23	.03
12	.03	.13	.04	.08	.04	.56	.97	965	3.6	.13	.02	.01
13	.00	.13	.04	.10	.04	.59	.97	934	3.9	.13	.01	.01
14	.00	.13	.06	.14	.04	.52	.97	904	3.4	.04	.67	.67
15	.00	.13	.11	.65	.00	.52	.97	869	3.4	.04	.07	.02
16	.00	.13	.13	.20	.00	.53	.97	820	3.4	.04	2.0	.01
17	66	.13	.13	.14	.00	.47	.97	778	3.2	1.3	.66	.01
18	118	.14	.10	.13	.00	.47	.97	242	2.8	2.1	.17	.05
19	116	.19	.08	.14	.00	1.2	.97	.21	2.6	.72	.02	.07
20	114	.17	.08	.17	.00	1.1	.97	.08	3.2	.04	.00	.16
21	114	.17	.08	.16	.83	.65	.97	2.9	3.4	.04	.00	.12
22	114	.17	.08	.17	.52	1.5	.97	8.3	3.4	.04	.00	.11
23	110	.38	.08	.17	.92	2.1	.97	7.0	3.4	.04	.00	.17
24	42	.12	.08	.17	.39	2.0	.97	5.4	3.6	.04	.00	1.3
25	.00	.08	.08	.13	.31	1.9	.97	3.9	3.6	.04	.00	.47
26	.00	.08	.08	.13	.29	1.8	.97	3.6	3.4	620	.00	.24
27	.00	.10	.08	.13	.36	1.4	.97	3.6	3.4	1120	.00	.13
28	.00	.10	.08	.13	.36	1.3	.97	4.1	2.5	1160	.00	.85
29	.02	.10	.08	.13	.40	1.2	.97	2.1	.08	1140	.00	.17
30	.04	.10	.08	.17	---	1.3	.97	.13	.08	1120	.00	.24
31	.00	---	.08	.17	---	1.2	---	.08	---	1100	.00	---
TOTAL	795.62	3.67	2.53	4.29	5.83	27.13	28.54	10219.22	61.36	6265.72	8429.20	5.92
MEAN	25.7	.12	.082	.14	.20	.88	.95	330	2.05	202	272	.20
MAX	118	.38	.13	.65	.92	2.1	1.1	1010	3.9	1160	1080	1.3
MIN	.00	.00	.04	.08	.00	.36	.76	.08	.08	.00	.00	.00
AC-FT	1580	7.3	5.0	8.5	12	54	57	20270	122	12430	16720	12

CAL YR 1983 TOTAL 52240.13 MEAN 143 MAX 1160 MIN .00 AC-FT 103600
WTR YR 1984 TOTAL 25849.03 MEAN 70.6 MAX 1160 MIN .00 AC-FT 51270

08383000 PECOS RIVER AT SANTA ROSA, NM

LOCATION.--Lat 34°56'36", long 104°41'55", in NW¼SE¼ sec.3, T.8 N., R.21 E., Guadalupe County, Hydrologic Unit 13060001, on left bank, 0.4 mi downstream from bridge on U.S. Highway I-40, 0.6 mi upstream from bridge on U.S. Highway I-40 (Business) in Santa Rosa, 1.9 mi upstream from El Rito Creek, and at mile 748.4.

DRAINAGE AREA.--2,650 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1903 to December 1905 (gage heights only), January to December 1906, February 1910 to July 1911, September 1912 to December 1924, March to May 1927, July 1927, January 1928 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Apr. 5-20, May 4-7, 11, Aug. 13, 16-18, 24, Sept. 7-9, 11, 13, 19, 21, 23, 25, 27, Oct. 1-31, Nov. 3, 4, 9, 11, 20, 22, 1910, and Feb. 1 to Mar. 31, June 1 to July 31, 1911, published in WSP 358 are unreliable and should not be used.

REVISED RECORDS.--WSP 1512: 1913-15. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and partial concrete control. Datum of gage is 4,537.56 ft National Geodetic Vertical Datum of 1929. For history of changes prior to Sept. 13, 1967, see WSP 2123.

REMARKS.--Records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980. Diversions for irrigation of about 12,000 acres, 1959 determination, above station.

AVERAGE DISCHARGE.--63 years (1906, 1913-14, 1928-79), 135 ft^3/s, 97,810 acre-ft/yr, prior to completion of Santa Rosa Dam.

5 years (1980-1984), 86.6 ft^3/s, 62,740 acre-ft/yr, since completion of Santa Rosa Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft^3/s June 2, 1937, gage height, 25.7 ft, site and datum then in use, from rating curve extended above 32,000 ft^3/s; minimum 0.28 ft^3/s Jan. 7, 1971. The flood of June 2, 1937, is the greatest since about 1886. Flood of Sept. 30, 1904, reached a stage of 24.7 ft, site and datum then in use, discharge, 45,000 ft^3/s, by Kutter's formula. Flood of June 9, 1903, reached a stage of 21.1 ft, same site and datum as in 1904, discharge, 34,000 ft^3/s, by comparison with 1904 flood.

Since completion of Santa Rosa Dam in 1980, maximum discharge 7,050 ft^3/s Aug. 11, 1981, gage height, 6.56 ft; minimum daily, 2.4 ft^3/s Aug. 29-31, 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,290 ft^3/s Sept. 14, gage height, 3.49 ft; minimum daily discharge, 2.4 ft^3/s Aug. 29-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	3.7	3.3	5.9	5.4	4.4	6.6	5.3	4.7	5.9	1040	2.7
2	5.9	3.7	4.2	5.3	5.9	3.3	6.4	5.1	5.4	5.9	1020	3.0
3	4.4	3.7	4.2	5.3	5.9	3.7	6.6	4.7	8.2	6.3	997	3.2
4	3.3	6.9	4.2	4.7	5.9	3.8	6.6	4.7	6.7	5.3	970	4.7
5	3.7	15	4.2	4.7	6.2	4.8	6.3	4.7	5.3	6.2	943	4.7
6	3.4	4.7	4.2	5.3	5.9	4.7	5.3	4.7	4.9	6.2	910	4.7
7	3.0	4.0	3.7	5.9	6.6	5.0	5.8	483	4.2	5.9	922	4.7
8	3.0	3.5	3.7	5.3	6.1	4.7	6.3	1080	4.2	5.9	935	4.7
9	3.0	3.3	3.7	5.3	4.8	5.4	5.1	1050	4.2	5.3	460	4.7
10	3.0	3.3	3.7	5.4	4.6	5.4	6.7	1030	4.2	5.9	18	4.7
11	4.1	3.3	4.2	5.4	4.7	4.5	5.2	1030	6.0	5.9	9.9	4.7
12	4.7	3.3	4.2	5.3	4.5	5.0	4.8	1030	8.0	5.9	6.8	4.7
13	4.7	3.2	4.2	5.3	4.6	4.5	5.7	1010	8.0	5.9	11	5.4
14	4.7	3.3	4.2	5.3	4.0	4.8	5.9	971	8.0	5.9	12	224
15	4.7	3.3	4.2	6.4	3.0	5.3	5.9	947	8.4	5.9	5.2	45
16	4.7	3.3	4.2	7.3	3.7	5.3	5.9	901	10	5.9	4.5	10
17	40	3.3	4.7	7.3	3.8	5.9	5.9	870	9.4	11	3.7	6.9
18	156	3.3	4.7	7.3	3.3	6.3	5.4	414	17	9.1	3.0	5.3
19	159	4.4	4.7	7.3	4.0	6.6	4.7	20	12	6.4	3.0	5.3
20	164	3.5	4.7	6.6	4.7	8.4	5.1	11	8.6	5.9	3.0	5.3
21	157	3.4	4.7	6.6	4.9	9.5	5.3	8.1	7.6	5.9	3.0	5.3
22	146	3.7	4.7	6.6	5.2	8.1	5.3	5.9	6.6	5.9	4.4	5.3
23	138	3.7	4.7	6.6	4.5	11	5.3	17	6.6	5.9	4.9	5.3
24	92	3.7	4.2	7.3	4.5	15	5.3	22	6.6	5.9	3.3	4.7
25	9.2	3.7	4.7	5.9	4.5	15	5.4	16	6.6	5.9	3.3	4.7
26	5.8	4.0	4.7	5.9	5.4	12	6.0	13	7.3	460	3.3	4.7
27	4.9	4.2	4.2	5.9	4.7	14	5.3	13	7.3	1030	3.3	4.7
28	4.2	4.2	5.1	5.6	5.2	12	5.3	13	7.3	1070	3.1	4.7
29	3.7	3.7	6.3	6.5	4.0	7.7	5.6	13	7.3	1070	2.4	4.7
30	3.7	3.3	7.4	5.5	---	6.6	5.3	9.6	6.4	1060	2.4	4.7
31	3.7	---	6.6	5.3	---	6.6	---	5.7	---	1040	2.4	---
TOTAL	1152.5	123.6	140.4	184.3	140.5	219.3	170.3	11012.5	217.0	5886.1	8312.9	407.2
MEAN	37.2	4.12	4.53	5.95	4.84	7.07	5.68	355	7.23	190	268	13.6
MAX	164	15	7.4	7.3	6.6	15	6.7	1080	17	1070	1040	224
MIN	3.0	3.2	3.3	4.7	3.0	3.3	4.7	4.7	4.2	5.3	2.4	2.7
AC-FT	2290	245	278	366	279	435	338	21840	430	11680	16490	808

CAL YR 1983 TOTAL 55601.1 MEAN 152 MAX 1130 MIN 3.0 AC-FT 110300
WTR YR 1984 TOTAL 27966.6 MEAN 76.4 MAX 1080 MIN 2.4 AC-FT 55470

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.6 mi downstream from discharge station.

PERIOD OF RECORD.--Water years 1905-07, 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: October 1958 to current year.
SUSPENDED-SEDIMENT DISCHARGES: October 1958 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,170 microsiemens Oct. 21, 1982; minimum daily, 173 microsiemens May 22, 1973.
WATER TEMPERATURES: Maximum daily, 38.0°C May 11, 1970; minimum daily, 0.0°C on several days during most winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 31,400 mg/L Aug. 18, 1961; minimum daily mean, 0 mg/L June 17, Nov. 14, 1982, Aug. 19, Sept. 18, 1983.
SEDIMENT LOADS: Maximum daily, 344,000 tons July 30, 1971; minimum daily, 0 tons June 17, Nov. 14, 1982, Aug. 19, Sept. 18, Nov. 24, 1983

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,020 microsiemens Dec. 24; minimum daily, 436 microsiemens July 30.
WATER TEMPERATURES: Maximum daily, 31.0°C July 5, Aug. 27; minimum daily, 0.0°C Dec. 22, 24, Jan. 18, 19, 21.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 7,040 mg/L Aug. 6; minimum daily mean, 1 mg/L Nov. 19, 24, 26, Jan. 18, 20.
SEDIMENT LOADS: Maximum daily, 17,300 tons Aug. 6; minimum daily, 0 tons Nov. 24.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV											
08...	1630	3.4	2250	2410	6.5	7.9	20.0	16.0	8.2	1600	1500
JAN											
10...	1630	4.8	--	3690	8.0	--	14.0	10.0	9.2	--	--
MAR											
14...	1615	4.7	2670	2690	8.1	7.8	24.0	13.0	8.7	1600	1500
MAY											
15...	1700	936	580	643	8.0	7.5	22.0	19.0	7.5	310	200
JUL											
13...	0930	5.8	2500	2670	8.0	7.8	28.5	24.0	7.7	1700	1500

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV										
08...	540	66	49	.6	2.3	1500	59	.60	14	2300
JAN										
10...	--	--	--	--	--	--	--	--	--	--
MAR										
14...	540	68	57	.6	2.3	1500	66	.70	16	2300
MAY										
15...	96	16	12	.3	2.0	210	6.3	.30	4.5	410
JUL										
13...	550	69	55	.6	2.3	1500	73	.60	14	2300

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV			
08...	1630	90	50
MAR			
14...	1615	100	50
MAY			
15...	1700	30	23
JUL			
13...	0930	100	50

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
NOV							
08...	1630	3.4	16.0	25	.23	--	--
DEC							
15...	0830	4.2	6.0	38	.43	--	--
JAN							
10...	1630	4.8	10.0	36	.46	--	--
FEB							
14...	1200	4.2	13.5	31	.35	--	--
MAR							
14...	1615	4.7	13.0	12	.15	--	--
MAY							
15...	1700	936	19.0	169	427	--	--
17...	0810	864	18.0	167	390	--	--
17...	1545	864	20.0	5520	12900	46	58
JUL							
18...	0804	9.0	19.0	196	4.8	--	--
AUG							
04...	0720	980	22.0	1200	3180	52	69
06...	0815	910	23.0	15500	38100	47	64
06...	1100	910	26.0	10900	26800	49	65
SEP							
13...	1630	5.0	30.0	13	.18	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)
NOV							
08...	--	72	--	--	--	--	--
DEC							
15...	--	59	--	--	--	--	--
JAN							
10...	--	76	--	--	--	--	--
FEB							
14...	--	60	--	--	--	--	--
MAR							
14...	--	66	--	--	--	--	--
MAY							
15...	--	59	61	67	84	97	100
17...	--	97	99	100	--	--	--
17...	92	100	--	--	--	--	--
JUL							
18...	--	89	--	--	--	--	--
AUG							
04...	95	100	--	--	--	--	--
06...	95	100	--	--	--	--	--
06...	95	100	--	--	--	--	--
SEP							
13...	--	91	--	--	--	--	--

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2830	2770	2810	2700	2650	2910	2470	2420	2420	2450	454	2970
2	2730	2780	2810	2740	2660	2770	2460	2530	2540	2530	455	2950
3	2820	2810	2730	2730	2670	2810	2490	2550	2460	2620	494	2980
4	2830	2820	2760	2750	2660	2800	2520	2540	2380	2590	497	2970
5	2850	2840	2810	2740	2670	2820	2580	2560	2470	2680	506	2690
6	2850	2580	2830	2750	2650	2620	2610	2590	2260	2610	548	2830
7	2870	2670	2850	2760	2680	2790	2650	2630	2560	2700	514	2870
8	2860	2730	2840	2760	2660	2810	2600	941	2580	2720	518	2890
9	2870	2800	2880	2760	2680	2850	2630	925	2650	2750	571	2880
10	2860	2830	2860	2750	2670	2820	2570	905	2640	2760	1610	2880
11	2880	2860	2870	2770	2690	2840	2580	911	2730	2760	1980	2870
12	2830	2860	2830	2770	2680	2830	2610	880	2720	2770	2060	2870
13	2870	2900	2890	2780	2690	2850	2650	875	2740	2780	2480	2890
14	2880	2880	2890	2760	2680	2860	2660	811	2140	2820	1820	2750
15	2890	2910	2900	2780	2750	2850	2460	707	2050	2820	2320	1000
16	2900	2900	2900	2790	2830	2850	2560	573	2040	2840	2370	1990
17	2900	2920	2920	2730	2830	2970	2600	486	2070	2820	2520	2350
18	1230	2910	2920	2810	2850	2890	2590	457	2240	2580	2630	2530
19	927	2950	2920	2850	2820	2870	2650	1390	2020	2760	2690	2660
20	885	2970	2930	2820	2820	2850	2690	1870	2280	2830	2740	2740
21	900	2970	2920	2860	2850	2690	2690	2100	2370	2870	2800	2810
22	944	2970	2960	2470	2840	2670	2690	2270	2360	2870	2830	2810
23	888	2970	2930	2610	2910	2670	2690	1970	2360	2860	2430	2850
24	938	2970	3020	2590	2890	2400	2660	1630	2400	2500	2780	2880
25	917	2990	2970	2610	2890	2370	2670	1660	2420	2720	2830	2920
26	2080	3000	2930	2600	2880	2280	2670	1770	2430	2740	2830	2840
27	2380	2500	2900	2620	2940	2230	2660	1820	2380	2780	2880	2850
28	2550	2680	2840	2620	2930	2270	2640	1810	2420	522	2950	2890
29	2610	2740	2740	2630	2940	2380	2590	1800	2450	447	2980	2520
30	2730	2760	2710	2640	---	2260	2630	1860	2260	436	2950	2700
31	2760	---	2710	2660	---	2370	---	2230	---	446	2960	---
MEAN	2300	2840	2860	2720	2770	2680	2610	1630	2390	2430	1970	2720

WTR YR 1984 MEAN 2490 MAX 3020 MIN 436

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	14.0	5.5	4.5	5.0	7.0	8.0	12.0	18.0	21.0	22.0	18.5
2	13.0	12.0	8.0	6.0	6.0	7.5	7.0	9.0	17.0	20.0	23.0	20.0
3	15.0	9.0	7.0	4.5	5.0	7.0	7.5	9.5	18.0	20.5	23.0	20.0
4	14.0	9.0	8.5	3.5	6.5	7.0	9.0	12.0	17.0	19.0	22.0	19.0
5	16.0	9.0	5.0	4.0	9.0	4.0	9.0	11.0	17.5	31.0	23.0	16.0
6	18.0	17.5	2.0	5.0	12.0	3.0	11.0	14.0	15.0	19.0	23.0	16.0
7	17.0	8.0	4.5	5.0	14.0	4.5	11.0	9.0	16.5	20.0	24.0	15.0
8	15.0	14.0	7.0	7.0	7.0	5.0	11.5	12.0	17.0	23.5	23.0	15.0
9	14.0	9.0	7.0	6.0	5.0	6.0	13.5	13.0	17.5	20.0	22.0	20.0
10	15.0	8.0	7.0	5.0	6.0	8.0	10.0	14.5	18.5	21.0	20.0	17.0
11	14.0	10.0	13.0	4.5	7.0	9.0	13.0	21.0	18.0	20.0	19.0	18.0
12	13.0	9.0	8.0	4.0	7.0	7.0	10.5	15.5	28.0	21.0	19.0	19.0
13	14.0	13.0	4.0	3.5	6.0	9.0	12.0	19.0	19.0	20.0	20.5	18.0
14	12.0	10.0	3.5	1.5	10.0	10.0	9.0	18.0	18.0	19.0	20.0	19.0
15	13.0	7.0	4.5	4.0	5.0	10.5	15.5	18.0	20.0	23.5	24.5	16.0
16	13.0	8.0	4.0	2.5	4.0	11.5	11.0	18.5	18.5	21.5	19.0	17.0
17	14.0	9.0	4.0	3.0	4.0	17.5	13.0	18.0	20.5	20.0	19.0	17.0
18	16.0	10.0	2.0	.0	3.0	8.0	14.0	17.0	20.0	19.0	19.0	18.0
19	15.0	9.0	3.0	.0	5.0	7.0	15.0	16.0	17.0	20.0	22.0	17.0
20	12.0	13.0	7.0	1.0	3.0	7.0	11.0	20.5	19.0	19.0	20.0	15.5
21	13.0	7.0	1.0	.0	3.0	9.0	11.0	18.0	20.0	20.0	20.0	16.5
22	13.0	8.0	.0	4.0	6.0	11.0	9.0	19.0	19.0	24.0	21.0	17.0
23	18.0	4.0	4.0	2.0	7.0	7.0	12.0	24.0	20.5	20.0	19.0	18.5
24	13.0	4.0	.0	3.0	6.0	7.5	14.0	19.0	23.0	21.0	20.0	17.0
25	12.0	8.0	1.0	3.0	5.0	12.0	14.0	19.0	20.5	20.0	19.0	13.0
26	9.0	8.0	3.0	3.5	7.0	7.5	8.0	17.0	21.0	18.0	22.0	13.0
27	10.0	4.5	7.0	4.0	4.0	8.0	7.0	16.0	21.0	20.0	31.0	13.0
28	12.0	3.0	1.0	5.0	3.0	7.5	9.0	15.5	20.0	22.0	20.0	13.0
29	10.0	4.0	1.0	4.5	4.0	8.0	12.0	15.0	21.0	22.0	19.0	15.0
30	18.0	5.0	1.5	4.0	---	7.0	9.0	21.0	20.0	22.0	19.0	10.0
31	13.0	---	5.0	3.5	---	7.5	---	17.0	---	22.0	19.0	---
MEAN	14.0	9.0	4.5	3.5	6.0	8.0	11.0	16.0	19.0	21.0	21.0	16.5

WTR YR 1984 MEAN 12.5 MAX 31.0 MIN .0

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6	.08	6	.06	15	.13	5	.08	27	.39	4	.05
2	29	.46	10	.10	7	.08	7	.10	68	1.1	3	.03
3	6	.07	6	.06	17	.19	8	.11	15	.24	4	.04
4	4	.04	17	.32	7	.08	27	.34	21	.33	3	.03
5	5	.05	49	2.0	10	.11	7	.09	7	.12	4	.05
6	4	.04	9	.11	7	.08	12	.17	6	.10	5	.06
7	11	.09	7	.08	14	.14	10	.16	5	.09	6	.08
8	7	.06	15	.14	15	.15	11	.16	10	.16	6	.08
9	5	.04	6	.05	10	.10	10	.14	7	.09	10	.15
10	7	.06	5	.04	10	.10	23	.34	15	.19	7	.10
11	9	.10	3	.03	10	.11	11	.16	5	.06	10	.12
12	5	.06	4	.04	11	.12	11	.16	15	.18	7	.09
13	5	.06	10	.09	9	.10	8	.11	4	.05	6	.07
14	5	.06	6	.05	7	.08	8	.11	18	.19	9	.12
15	5	.06	13	.12	47	.53	11	.19	18	.15	7	.10
16	9	.11	4	.04	8	.09	5	.10	4	.04	8	.11
17	17	5.2	3	.03	10	.13	12	.24	11	.11	7	.11
18	41	17	4	.04	10	.13	1	.02	12	.11	6	.10
19	25	11	1	.01	8	.10	3	.06	7	.08	5	.09
20	20	8.9	2	.02	9	.11	1	.02	6	.08	3	.07
21	13	5.5	2	.02	12	.15	7	.12	17	.22	2	.05
22	24	9.5	3	.03	10	.13	12	.21	6	.08	4	.09
23	41	15	2	.02	8	.10	9	.16	5	.06	11	.33
24	62	15	1	.00	13	.15	15	.30	5	.06	15	.61
25	50	1.2	2	.02	14	.18	16	.25	14	.17	11	.45
26	6	.09	1	.01	33	.42	22	.35	5	.07	8	.26
27	2	.03	16	.18	22	.25	14	.22	4	.05	25	.95
28	4	.05	15	.17	14	.19	13	.20	4	.06	5	.16
29	6	.06	8	.08	29	.49	16	.28	5	.05	2	.04
30	4	.04	7	.06	10	.20	92	1.4	---	---	4	.07
31	4	.04	---	---	8	.14	98	1.4	---	---	4	.07
TOTAL	---	90.05	---	4.02	---	5.06	---	7.75	---	4.68	---	4.73

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6	.11	9	.13	83	1.1	59	.94	52	146	10	.07
2	12	.21	13	.18	18	.26	157	2.5	41	113	9	.07
3	7	.12	14	.18	20	.44	101	1.7	106	285	3	.03
4	5	.09	30	.38	22	.40	95	1.4	486	1270	6	.08
5	3	.05	10	.13	8	.11	84	1.4	170	433	58	.74
6	3	.04	18	.23	10	.13	80	1.3	7040	17300	62	.79
7	7	.11	195	497	15	.17	61	.97	366	911	50	.63
8	20	.34	94	274	26	.29	44	.70	167	422	54	.69
9	5	.07	65	184	14	.16	32	.46	171	212	58	.74
10	4	.07	53	147	10	.11	32	.51	168	8.2	37	.47
11	3	.04	56	156	8	.13	38	.61	148	4.0	39	.49
12	7	.09	51	142	7	.15	24	.38	31	.57	36	.46
13	4	.06	66	180	27	.58	22	.35	54	1.6	15	.22
14	2	.03	90	236	118	2.5	27	.43	45	1.5	211	435
15	4	.06	124	317	61	1.4	26	.41	49	.69	236	29
16	11	.18	167	406	42	1.1	22	.35	19	.23	45	1.2
17	14	.22	3270	7680	45	1.1	57	3.0	12	.12	52	.97
18	11	.16	3870	7130	142	7.3	166	4.1	12	.10	59	.84
19	5	.06	141	7.6	116	3.8	78	1.3	11	.09	41	.59
20	36	.50	64	1.9	41	.95	38	.61	11	.09	73	1.0
21	25	.36	17	.37	57	1.2	50	.80	8	.06	66	.94
22	6	.09	17	.27	52	.93	60	.96	5	.06	63	.90
23	10	.14	74	3.4	47	.84	39	.62	40	.53	57	.82
24	6	.09	48	2.9	45	.80	57	.91	12	.11	50	.63
25	29	.42	42	1.8	55	.98	27	.43	13	.12	85	1.1
26	34	.55	37	1.3	46	.91	762	1830	6	.05	89	1.1
27	12	.17	46	1.6	37	.73	1310	3640	6	.05	76	.96
28	7	.10	26	.91	33	.65	600	1730	5	.04	56	.71
29	7	.11	30	1.1	28	.55	320	924	6	.04	8	.10
30	6	.09	63	1.6	57	.98	227	650	3	.02	8	.10
31	---	---	8	.12	---	---	60	168	12	.08	---	---
TOTAL	---	4.73	---	17375.10	---	30.75	---	8969.14	---	21110.35	---	481.44

TOTAL LOAD FOR YEAR: 48087.80 TONS.

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM
(Surveillance network station)

LOCATION.--Lat 34°43'48", long 104°31'28", in NE¼SE¼NW¼ sec.20, T.6 N., R.23 E., Guadalupe County, Hydrologic Unit 13060001, on left bank 9.0 mi southeast of Puerto de Luna, 17.5 mi upstream from Sumner Dam, and at mile 719.5.

DRAINAGE AREA.--3,970 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to current year.

REVISED RECORDS.--WSP 1512: 1939.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,311.34 ft National Geodetic Vertical Datum of 1929. Prior to Apr. 15, 1954, at datum 1 ft higher.

REMARKS.--Records good except those for Sept. 14, 15 when the float hung, which is fair. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980. Diversions for irrigation of about 12,500 acres, 1959 determination, above station. Discharge represents inflow to Lake Sumner.

AVERAGE DISCHARGE.--41 years (1939-79), 209 ft^3/s, 151,400 acre-ft/yr, prior to completion of Santa Rosa Dam. 5 years (1980-84), 172 ft^3/s, 124,600 acre-ft/yr, since completion of Santa Rosa Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,600 ft^3/s Sept. 1, 1942, gage height, 17.00 ft, from rating curve extended above 7,400 ft^3/s on basis of flow "at Santa Rosa"; minimum, 11 ft^3/s Jan. 31, 1951.
Since completion of Santa Rosa Dam in 1980, maximum discharge 10,900 ft^3/s June 10, 1982, gage height, 7.44 ft; minimum, 45 ft^3/s June 9, 1982 and Aug. 19, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft^3/s and peak inflow to Lake Sumner was about 75,000 ft^3/s. Flood of July 24, 1895, was reported as "highest in 10 years." Other major floods occurred on June 9, 1903, Sept. 30, 1904, and May 1, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23,000 ft^3/s Sept. 14, gage height, 10.4 ft from flood marks; minimum, 56 ft^3/s Apr. 25 and June 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	81	84	126	79	77	77	67	67	98	1150	75
2	81	80	87	89	77	77	76	65	67	97	1160	72
3	68	82	92	85	78	77	72	64	114	75	1180	71
4	65	121	85	84	78	76	71	63	87	104	1130	74
5	68	194	82	84	78	82	72	63	74	215	1100	66
6	68	93	82	86	78	79	68	64	66	428	1090	62
7	67	82	81	86	76	78	72	63	64	104	1070	60
8	66	78	81	83	76	77	73	1070	63	78	1200	60
9	66	77	81	83	76	78	66	1120	61	66	1010	60
10	66	79	82	82	75	78	75	1130	59	63	291	60
11	65	77	82	81	75	79	69	1090	60	63	134	61
12	76	76	83	80	76	79	64	1080	61	63	111	62
13	66	76	85	80	77	78	64	1060	141	59	101	135
14	65	76	87	84	76	77	63	1050	140	59	98	2390
15	65	78	87	91	75	78	65	1030	80	58	115	2250
16	66	81	89	86	76	77	67	1050	206	82	97	257
17	68	80	86	86	77	73	66	1090	139	167	79	130
18	111	80	92	85	76	73	63	957	189	766	76	106
19	199	85	120	94	75	76	63	227	121	164	75	94
20	245	83	96	89	76	76	65	125	145	98	71	88
21	215	81	108	89	77	80	65	107	84	83	67	84
22	213	82	110	84	77	84	68	97	80	70	67	82
23	215	82	110	82	77	86	69	89	75	67	754	79
24	212	82	110	80	76	86	67	198	69	67	104	75
25	139	82	110	80	77	85	63	206	66	67	88	66
26	90	82	110	80	77	83	61	98	67	66	84	72
27	82	84	162	80	77	87	63	91	64	996	83	84
28	75	84	102	79	78	89	64	89	64	1180	76	76
29	74	83	101	80	77	82	73	87	62	1180	74	80
30	74	83	103	79	---	78	73	89	62	1170	72	79
31	75	---	119	79	---	80	---	75	---	1160	73	---
TOTAL	3190	2584	2989	2636	2223	2465	2037	13754	2696	9013	12880	7010
MEAN	103	86.1	96.4	85.0	76.7	79.5	67.9	444	89.9	291	415	234
MAX	245	194	162	126	79	89	77	1130	206	1180	1200	2390
MIN	65	76	81	79	75	73	61	63	59	58	67	60
AC-FT	6330	5130	5930	5230	4410	4890	4040	27280	5350	17880	25550	13900

CAL YR 1983 TOTAL 85581 MEAN 234 MAX 1240 MIN 48 AC-FT 169700
WTR YR 1984 TOTAL 63477 MEAN 173 MAX 2390 MIN 58 AC-FT 125900

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
NOV 08...	1115	78	2570	2700	8.2	7.8	20.0	15.5	9.0	10	1700
JAN 10...	1130	80	4100	--	8.2	--	5.5	5.5	11.2	<10	--
MAR 13...	1130	78	2890	2940	8.4	7.9	22.0	14.5	9.0	<10	1700
MAY 15...	1000	1010	910	919	8.1	7.8	22.0	17.5	8.3	19	490
JUL 10...	0900	64	2800	2930	7.6	7.4	26.5	21.0	6.9	35	1600
SEP 13...	1100	63	3020	--	8.1	--	24.0	22.5	9.0	10	--

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV 08...	1600	570	71	97	1	2.5	150	.000	--	1500	140
JAN 10...	--	--	--	--	--	--	150	.000	130	--	--
MAR 13...	1600	570	75	100	1	2.1	130	6.0	120	1600	150
MAY 15...	360	160	23	20	.4	1.9	150	6.0	130	370	17
JUL 10...	1500	540	71	100	1	3.2	150	.000	130	1600	150
SEP 13...	--	--	--	--	--	--	110	7.0	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 08...	.60	14	2500	<.10	<.10	.080	.52	--	.010	<.010	.60
JAN 10...	--	--	--	<.10	<.10	<.010	--	--	.010	<.010	.80
MAR 13...	.50	14	2600	<.10	<.10	.090	--	--	.020	.010	.90
MAY 15...	.30	4.1	680	.20	.22	.170	3.8	4.2	.300	.020	5.8
JUL 10...	.60	15	2600	<.10	<.10	.050	1.5	--	.150	.150	3.8
SEP 13...	--	--	--	<.10	<.10	.220	.08	--	.010	<.010	1.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV 08...	1115	<1	1	100	<1	<1	10	10	4	<1
MAR 13...	1130	--	--	110	--	--	--	--	--	--
MAY 15...	1000	--	--	40	--	--	--	--	--	--
JUL 10...	0900	1	<1	110	<1	<1	20	10	14	1

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
08...	90	4	4	<.1	<.1	1	<1	20	10
MAR									
13...	40	--	--	--	--	--	--	--	--
MAY									
15...	17	--	--	--	--	--	--	--	--
JUL									
10...	30	8	<1	.7	.3	<1	<1	60	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV							
08...	1115	<2.0	4.7	150	1	<1	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV							
08...	<10	<1	700	<10	350	<.01	6

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
08...	1115	<83	2.0	<29	1.3	<24	1.1	.07	2.1

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
MAR										
13...	1130	--	--	--	--	--	--	--	--	--
SEP										
13...	1100	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAR									
13...	--	--	--	--	--	--	--	--	--
SEP									
13...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 13...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 13...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 08...	1115	77	120
JAN 10...	1130	1	2
MAR 13...	1130	0	41
MAY 15...	1000	77	180
JUL 10...	0900	0	850
SEP 13...	1100	21	100

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 08...	1115	78	15.5	102	21	88
JAN 10...	1130	80	5.5	26	5.6	57
MAR 13...	1130	78	14.5	11	2.3	64
MAY 15...	1000	1010	17.5	765	2090	18
JUL 10...	0900	64	21.0	350	60	96
SEP 13...	1100	63	22.5	30	5.1	73

08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", long 104°23'04", in SE¼SW¼ sec.34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, near center of dam on Pecos River, 5.0 mi northeast of Guadalupe, 12.2 mi northwest of Fort Sumner, and at mile 702.0.

DRAINAGE AREA.--4,390 mi^2, approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (month end elevations and contents), October 1965 to current year. Month end elevations September 1937 to November 1938 published in reports of Pecos River Commission. Elevations and contents May 27, 1937 to June 10, 1937 in WSP 842. Prior to October 1974, published as "Alamogordo Reservoir".

REVISED RECORDS.--WSP 1732: 1939-54 (contents). WSP 1923: 1939-53(M) (m).

GAGE.--Nonrecording gage. Datum of gage is at Bureau of Reclamation datum. April 1, 1946, to Sept. 30, 1957, water-stage recorder above elevation 4,234.25 ft, nonrecording gage below.

REMARKS.--Reservoir is formed by earthfill dam, completed and storage began in August 1937. Capacity, 101,600 acre-ft between elevation 4,200.0 ft sill of outlet gate and elevation 4,275.0 ft, normal operating level. No dead storage. Reservoir is used to store water for irrigation.

COOPERATION.--Elevation record and capacity table (dated November 1973) furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 138,300 acre-ft May 23-30, June 1-10, July 21, Sept. 22, 23, 30, Oct. 12, Nov. 4, 5, 30, Dec. 23, 24, 1941, elevation, 4,275.00 ft; maximum elevation 4,276.10 ft June 3, Sept. 8, 1958; no storage July 28 to Aug. 2, 1951, elevation 4,200.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 28,970 acre-ft Mar. 6, gage height, 4,251.60 ft; minimum, 4,620 acre-ft Oct. 19, gage-height, 4,229.80 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5510	8820	14490	19170	24410	28390	27450	24760	10440	11620	12590	14830
2	5510	9050	14830	19310	24580	28390	27260	24760	10270	11620	12590	14830
3	5580	9210	15050	19870	24760	28580	27080	24760	10180	11620	13100	14830
4	5510	9440	15280	20010	24760	28580	27080	22440	10880	11810	13200	14830
5	5450	10020	15400	20160	24930	28780	26890	20160	10880	11900	13200	14710
6	5390	10360	15510	20300	25100	28970	26890	19450	10790	12790	13200	14490
7	5270	10620	15630	20450	25280	28780	26890	16220	10700	13310	13200	14380
8	5210	10790	15740	20740	25450	28780	26710	13940	10620	13870	13200	14270
9	5150	10970	15860	20890	25450	28780	26710	13940	10530	13870	13410	14160
10	5090	11160	15980	21190	25630	28580	26520	13940	10270	13620	13200	14160
11	5030	11250	16100	21190	25630	28580	26520	13940	10180	13520	13520	13940
12	4970	11340	16220	21350	25810	28580	26340	13940	10100	13520	13730	13730
13	4910	11620	16340	21500	25980	28390	26340	13840	9930	13310	14050	13520
14	4850	11810	16460	21500	25980	28390	26340	13840	10440	13200	14270	13620
15	4800	11900	16700	21650	26160	28390	26160	13840	10530	13200	14270	16700
16	4740	[illegible]	16820	21760	26340	28390	26160	13940	10330	13000	14160	20450
17	4680	12200	17070	22120	26520	28200	25980	13940	10620	12900	14160	20890
18	4680	12390	17190	22280	26710	28200	25810	13940	10790	12490	14050	20890
19	4620	12590	17320	22280	26890	28010	25630	13410	11340	14270	14050	21040
20	4970	12690	17440	22440	26890	28010	25630	11620	12290	14490	14050	21040
21	5330	12900	17570	22600	27080	28010	25630	9440	12590	14270	13840	21040
22	5760	13100	17700	22760	27260	27820	25450	9210	12690	14270	13730	21040
23	6220	13200	17820	22920	27260	27820	25450	9280	12590	14270	14270	21040
24	6770	13310	17820	23080	27450	27820	25450	9360	12390	14270	14270	21040
25	7350	13410	17950	23240	27630	27820	25450	10020	12290	14160	15280	21040
26	7650	13730	18080	23410	27630	27630	25280	10440	12290	13940	15280	21040
27	7880	13940	18360	23570	27820	27630	25280	10620	12200	11900	15170	21040
28	8030	20450	18620	23740	28010	27630	25100	10700	12100	11900	15170	21040
29	8240	14160	18760	23900	28200	27630	24930	10530	11900	12100	15050	21040
30	8460	14270	18890	24070	---	27450	24760	10530	11810	12290	14940	21040
31	8680	---	19030	24240	---	27450	---	10530	---	12390	14940	---
MAX	8680	20450	19030	24240	28200	28970	27450	24760	12690	14490	15280	21040
MIN	4620	8820	14490	19170	24410	27450	24760	9210	9930	11620	12590	13520
(†)	+3170	+5590	+4760	+5210	+3960	-750	-2690	-14230	+1280	+580	+2550	+6100

CAL YR 1983 MAX 38900 MIN 4190 (†) -8600
WTR YR 1984 MAX 28970 MIN 4620 (†) +15530

(†) CHANGE IN CONTENTS IN ACRE-FEET.

08384000 LAKE SUMNER NEAR FORT SUMNER, NM -- Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4231.30	4235.90	4242.00	4245.70	4249.10	4251.30	4250.80	4249.30	4237.90	4239.20	4240.20	4242.30
2	4231.30	4236.20	4242.30	4245.80	4249.20	4251.30	4250.70	4249.30	4237.70	4239.20	4240.20	4242.30
3	4231.40	4236.40	4242.50	4246.20	4249.30	4251.40	4250.60	4249.30	4237.60	4239.20	4240.70	4242.30
4	4231.30	4236.70	4242.70	4246.30	4249.30	4251.40	4250.60	4247.90	4238.40	4239.40	4240.80	4242.30
5	4231.20	4237.40	4242.80	4246.40	4249.40	4251.50	4250.50	4246.40	4238.40	4239.50	4240.80	4242.20
6	4231.10	4237.80	4242.90	4246.50	4249.50	4251.60	4250.50	4245.90	4238.30	4240.40	4240.80	4242.00
7	4230.90	4238.10	4243.00	4246.60	4249.60	4251.50	4250.50	4243.50	4238.20	4240.90	4240.80	4241.90
8	4230.80	4238.30	4243.10	4246.80	4249.70	4251.50	4250.40	4241.50	4238.10	4241.40	4240.80	4241.80
9	4230.70	4238.50	4243.20	4246.90	4249.70	4251.50	4250.40	4241.50	4238.00	4241.40	4241.00	4241.70
10	4230.60	4238.70	4243.30	4247.10	4249.80	4251.40	4250.30	4241.50	4237.80	4241.20	4240.80	4241.70
11	4230.50	4238.80	4243.40	4247.10	4249.80	4251.40	4250.30	4241.50	4237.60	4241.10	4241.10	4241.50
12	4230.40	4238.90	4243.50	4247.20	4249.90	4251.40	4250.20	4241.50	4237.50	4241.10	4241.30	4241.30
13	4230.30	4239.20	4243.60	4247.30	4250.00	4251.30	4250.20	4241.40	4237.30	4240.90	4241.60	4241.10
14	4230.20	4239.40	4243.70	4247.30	4250.00	4251.30	4250.20	4241.40	4237.90	4240.80	4241.80	4241.20
15	4230.10	4239.50	4243.90	4247.40	4250.10	4251.30	4250.10	4241.40	4238.00	4240.80	4241.80	4243.90
16	4230.00	4239.70	4244.00	4247.60	4250.20	4251.30	4250.10	4241.50	4238.00	4240.60	4241.70	4246.60
17	4229.90	4239.80	4244.20	4247.70	4250.30	4251.20	4250.00	4241.50	4238.10	4240.50	4241.70	4246.90
18	4229.90	4240.00	4244.30	4247.80	4250.40	4251.20	4249.90	4241.50	4238.30	4240.10	4241.60	4246.90
19	4229.80	4240.20	4244.40	4247.80	4250.50	4251.10	4249.80	4241.00	4238.90	4241.80	4241.60	4247.00
20	4230.40	4240.30	4244.50	4247.90	4250.50	4251.10	4249.80	4239.20	4238.90	4242.00	4241.60	4247.00
21	4231.00	4240.50	4244.60	4248.00	4250.60	4251.10	4249.80	4236.70	4240.20	4241.80	4241.40	4247.00
22	4231.70	4240.70	4244.70	4248.10	4250.70	4251.00	4249.70	4236.40	4240.30	4241.80	4241.30	4247.00
23	4232.40	4240.80	4244.80	4248.20	4250.70	4251.00	4249.70	4236.50	4240.20	4241.80	4241.70	4247.00
24	4233.20	4240.90	4244.80	4248.30	4250.80	4251.00	4249.70	4236.60	4240.00	4241.80	4241.80	4247.00
25	4234.00	4241.00	4244.90	4248.40	4250.90	4251.00	4249.70	4237.40	4239.90	4241.70	4242.70	4247.00
26	4234.40	4241.30	4245.00	4248.50	4250.90	4250.90	4249.60	4237.90	4239.90	4241.50	4242.70	4247.00
27	4234.70	4241.50	4245.10	4248.60	4251.00	4250.90	4249.60	4238.10	4239.80	4239.50	4242.60	4247.00
28	4234.90	4246.60	4245.30	4248.70	4251.10	4250.90	4249.50	4238.20	4239.70	4239.50	4242.60	4247.00
29	4235.10	4241.70	4245.40	4248.80	4251.20	4250.90	4249.40	4238.00	4239.50	4239.70	4242.50	4247.00
30	4235.40	4241.80	4245.50	4248.90	---	4250.80	4249.30	4238.00	4239.40	4239.90	4242.40	4247.00
31	4235.70	---	4245.60	4249.00	---	4250.80	---	4238.00	---	4240.00	4242.40	---
MEAN	4231.76	4239.55	4243.97	4247.51	4250.14	4251.20	4250.06	4241.28	4238.66	4240.66	4241.51	4244.46
MAX	4235.70	4246.60	4245.60	4249.00	4251.20	4251.60	4250.80	4249.30	4240.30	4242.00	4242.70	4247.00
MIN	4229.80	4235.90	4242.00	4245.70	4249.10	4250.80	4249.30	4236.40	4237.30	4239.20	4240.20	4241.10

CAL YR 1983 MEAN 4243.91 MAX 4256.20 MIN 4229.00
WTR YR 1984 MEAN 4243.36 MAX 4251.60 MIN 4229.80

08384500 PECOS RIVER BELOW SUMNER DAM, NM
(National stream-quality accounting network station)

LOCATION.--Lat 34°36'15", long 104°23'14", in lot 1, sec.2, T.4 N., R.24 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1,200 ft downstream from Sumner Dam, 2.9 mi upstream from Salado Creek, 4.6 mi northeast of Guadalupe, 12.2 mi northwest of Fort Sumner, and at mile 701.7.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--4,390 mi^2, approximately (contributing area).

PERIOD OF RECORD.--October 1912 to April 1926, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. October 1944 to September 1974, published as "below Alamogordo Dam." Prior to October 1944, published as "near Guadalupe."

REVISED RECORDS.--WSP 1512: 1932. WSP 1632: 1942. WSP 1712: 1944.

GAGE.--Water-stage recorder and Parshall flume, with concrete control above top of flume. Datum of gage is 4,142.67 ft Bureau of Reclamation datum. Prior to Sept. 10, 1936, at site 1.5 mi upstream at different datum. Sept. 14, 1936, to Mar. 8, 1941, and June 11, to Sept. 21, 1941, at site 0.2 mi downstream at different datums.

REMARKS.--Records good. Flow completely regulated by Santa Rosa Lake (station 08382810) beginning April 1980 and Lake Sumner (station 08484000) 0.3 mi upstream beginning August 1937. Diversion for irrigation of about 12,500 acres, 1959 determination, above station.

AVERAGE DISCHARGE.--23 years (1913-25, 1927-36), 236 ft^3/s, 171,000 acre-ft/yr, prior to completion of Sumner Dam. 48 years (1937-84), 201 ft^3/s, 145,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft^3/s Sept. 1, 1942, by computation of flow over spillway and through outlet gates of Sumner Dam by Bureau of Reclamation; maximum gage height, 13.38 ft Sept. 22, 1941, no flow at times.
Flood of June 2, 1937, about 75,000 ft^3/s at site 1.5 mi upstream, from peak inflow to Lake Sumner.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,050 ft^3/s May 13-14 and July 30 to Aug. 5; minimum daily, 0.28 ft^3/s Nov. 10-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	.51	.45	.45	.45	1.0	100	103	101	100	1050	99
2	81	.87	.52	.45	.45	1.0	98	104	101	100	1050	98
3	89	.60	.47	.45	.45	1.1	98	736	101	100	1050	95
4	95	.66	.46	.45	.45	1.1	98	1020	101	100	1050	94
5	95	.51	.45	.45	.45	1.0	98	1020	101	100	1050	94
6	95	.40	.45	.45	.45	68	99	1020	101	101	1040	93
7	94	.41	.45	.45	.45	103	98	1010	101	42	1030	93
8	94	.32	.45	.45	.45	103	98	1020	101	.64	1040	93
9	95	.29	.45	.45	.45	103	98	1030	101	24	1050	94
10	96	.28	.46	.45	.45	103	98	1020	101	100	479	94
11	96	.28	.45	.45	.45	103	98	1030	101	99	.86	94
12	96	.32	.45	.45	.45	103	98	1040	101	100	.71	94
13	96	.47	.45	.45	.45	102	98	1050	101	99	46	94
14	95	.58	.45	.45	.45	101	98	1050	101	99	100	94
15	95	.64	.45	.45	.45	101	98	1030	101	99	100	95
16	95	3.0	.45	.45	.47	101	97	1010	101	99	99	94
17	95	.77	.45	.45	.47	101	96	1010	101	99	100	79
18	96	.78	.45	.45	.45	101	96	1010	101	101	99	73
19	96	.69	.45	.45	.45	100	97	1010	101	102	99	73
20	95	.64	.45	.45	.45	100	96	1010	102	104	99	73
21	62	.91	.45	.45	.45	100	97	512	100	104	100	72
22	.50	.84	.45	.45	.45	100	97	32	100	84	99	72
23	.45	1.1	.45	.45	.45	100	96	89	100	99	100	72
24	.47	.45	.45	.45	.45	100	96	49	101	100	100	72
25	.45	.45	.45	.45	.46	100	97	1.6	102	100	99	72
26	.45	.46	.45	.45	.43	100	96	1.6	101	700	99	72
27	.53	.45	.45	.45	.45	100	96	50	101	1030	99	72
28	.48	.45	.45	.45	.66	100	97	78	100	1040	99	72
29	.52	.45	.45	.45	1.1	100	98	91	100	1040	98	72
30	.53	.45	.45	.45	---	100	102	101	100	1050	99	72
31	.47	---	.45	.45	---	100	---	101	---	1050	99	---
TOTAL	1936.85	19.03	14.06	13.95	13.94	2598.2	2927	19439.2	3026	8165.64	11723.57	2530
MEAN	62.5	.63	.45	.45	.48	83.8	97.6	627	101	263	378	84.3
MAX	96	3.0	.52	.45	1.1	103	102	1050	102	1050	1050	99
MIN	.45	.28	.45	.45	.43	1.0	96	1.6	100	.64	.71	72
AC-FT	3840	38	28	28	28	5150	5810	38560	6000	16200	23250	5020

CAL YR 1983 TOTAL 82751.87 MEAN 227 MAX 1240 MIN .28 AC-FT 164100
WTR YR 1984 TOTAL 52407.44 MEAN 143 MAX 1050 MIN .28 AC-FT 104000

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
NOV 07...	1415	.32	2190	2040	8.0	7.8	21.5	16.0	.60	9.6
MAR 12...	1500	103	2750	2770	8.2	7.8	21.0	7.0	4.0	10.8
MAY 14...	1600	1030	1420	1500	8.2	8.0	30.0	18.0	4.6	9.4
SEP 10...	1500	94	1550	1580	8.0	7.9	34.5	22.0	60	7.9

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
NOV 07...	1200	1100	400	55	72	.9	2.4	120	.000	--
MAR 12...	1600	1500	530	66	96	1	2.5	120	11	110
MAY 14...	770	660	250	36	42	.7	2.2	130	6.0	110
SEP 10...	820	700	270	34	48	.8	2.7	140	.000	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV 07...	1100	100	.50	10	1880	1800	<.10	.090	.010	.030
MAR 12...	1500	140	.60	13	2590	2400	<.10	.100	.020	.020
MAY 14...	680	43	.40	3.3	1220	1100	.17	.050	.100	.030
SEP 10...	730	61	.50	8.7	1310	1200	.14	.190	.080	<.010

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
NOV 07...	1415	20	1	<100	<10	<1	1	<1	1	60	<1
MAR 12...	1500	10	<1	<100	<10	<1	1	<1	4	70	2
MAY 14...	1600	<10	<1	45	<1.0	<1	<1	<3	7	5	8
SEP 10...	1500	20	<1	130	<1.0	<1	<1	<3	3	30	4

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 07...	30	80	<.1	<1	1	1	<1	4900	1	30
MAR 12...	30	30	<.1	3	1	<1	<1	7000	3	40
MAY 14...	35	5	<.1	<10	<1	<1	<1	300	<6	34
SEP 10...	34	84	<.1	<10	1	<1	<1	3300	<6	12

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 07...	1415	43	40
MAR 12...	1500	0	25
MAY 14...	1600	7	16
SEP 10...	1500	300	520

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
10...	0900	96	2080	17.0	48	12	--
11...	1000	96	2130	17.0	50	13	--
11...	1150	96	2130	17.5	56	15	--
11...	1620	96	2110	17.5	43	11	--
12...	0720	96	2120	17.0	33	8.6	--
12...	0930	96	2120	17.0	32	8.3	--
12...	1730	96	2070	17.5	117	30	--
13...	0730	96	2160	16.5	113	29	--
13...	1530	96	2210	17.0	159	41	--
13...	1820	96	2240	17.0	155	40	--
14...	0830	95	2280	16.0	134	34	--
14...	1410	95	2240	17.0	170	44	--
15...	0930	95	2220	15.5	121	31	--
15...	1120	95	2210	16.0	120	31	--
16...	0710	95	2270	15.0	134	34	--
17...	0800	95	2440	15.0	153	39	--
17...	0940	95	2440	15.0	164	42	--
17...	1220	95	2430	15.5	163	42	--
20...	1440	95	2350	14.0	106	27	--
20...	1600	95	2360	14.0	92	24	--
21...	0800	95	2350	13.0	103	26	--
21...	1220	95	2350	14.0	110	28	--
21...	1450	95	2370	14.0	106	27	--
NOV							
07...	1415	.32	2190	16.0	70	.06	--
MAR							
06...	1340	107	2760	7.0	54	16	--
07...	1200	103	2890	8.0	21	5.8	--
08...	0907	103	2910	5.0	18	5.0	--
09...	0900	103	2930	6.0	18	5.0	--
10...	1030	103	2950	6.0	16	4.4	--
11...	0845	103	2940	6.0	15	4.2	--
12...	1400	103	2970	8.0	15	4.2	--
12...	1500	103	2750	7.0	10	2.8	99
13...	0804	102	2950	6.0	15	4.1	--
14...	1300	101	2950	8.0	11	3.0	--
15...	1330	101	2980	9.0	13	3.5	--
16...	1030	101	2960	9.0	13	3.5	--
17...	1000	101	2960	9.0	11	3.0	--
22...	0830	100	2790	9.0	8	2.2	--

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)
MAR							
23...	0900	100	2910	9.0	11	3.0	--
24...	1300	100	2930	10.0	11	3.0	--
25...	0900	100	2930	9.0	8	2.2	--
26...	0930	100	2940	9.0	8	2.2	--
27...	1330	100	2950	10.0	10	2.7	--
28...	0845	100	2640	9.0	17	4.6	--
29...	1300	100	2810	10.0	15	4.1	--
30...	1400	100	2860	10.0	21	5.7	--
31...	0845	100	2850	9.0	26	7.0	--
APR							
04...	1000	98	2920	10.0	21	5.6	--
10...	0911	98	2880	10.0	18	4.8	--
20...	1340	97	2970	13.0	17	4.5	--
27...	1110	96	2980	12.0	13	3.4	--
MAY							
01...	0900	103	2990	12.0	14	3.9	--
03...	0824	990	3020	19.0	3210	8580	9
03...	1308	1050	3000	15.0	29	82	--
04...	0908	1020	3010	14.0	20	55	--
05...	0815	1020	3020	14.0	21	58	--
06...	0900	1020	3030	14.0	10	28	--
07...	0900	1010	3040	16.0	21	57	--
08...	0800	1020	3040	15.0	48	132	--
09...	0800	1030	3050	15.0	95	264	--
11...	1345	1030	2940	17.0	48	133	--
14...	1600	1030	1420	18.0	21	58	--
16...	1430	1010	1240	20.0	52	142	--
17...	1420	1010	1190	20.0	85	232	--
18...	1445	1010	1150	19.0	35	95	--
19...	0830	1010	1050	20.0	38	104	--
20...	0800	1010	1060	19.0	73	199	--
23...	1440	89	1570	20.0	90	22	--
28...	1000	78	1400	20.0	85	18	--
29...	1415	97	1480	21.0	119	31	--
30...	0815	101	1510	20.0	97	26	--
30...	1430	101	1510	20.0	124	34	--
31...	0830	101	1490	20.0	94	26	--
31...	1430	101	1490	20.0	90	25	--
JUN							
01...	0915	101	1600	20.0	88	24	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
MAR							
23...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
APR							
04...	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--

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08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
MAY							
01...	--	--	--	--	--	--	--
03...	11	17	28	49	82	93	95
03...	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--
14...	--	--	91	--	--	--	--
16...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--
30...	--	--	99	--	--	--	--
30...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
JUN							
01...	--	--	--	--	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JUN						
01...	1330	101	1630	20.0	83	23
02...	0815	101	1540	20.0	66	18
03...	0830	101	1650	20.0	66	18
04...	1400	101	1560	20.0	54	15
05...	0820	101	1690	20.0	63	17
06...	1330	101	1620	20.0	82	22
07...	1000	101	1600	20.0	69	19
07...	1345	101	1610	21.0	78	21
08...	1345	101	1600	20.0	79	22
09...	0800	101	1670	20.0	64	17
10...	0800	101	1680	20.0	70	19
11...	1500	101	1710	20.0	67	18
12...	0815	101	1740	20.0	72	20
13...	0900	101	1750	20.0	67	18
14...	0830	101	1780	21.0	63	17
15...	0815	101	1780	21.0	62	17
16...	0800	101	1790	21.0	64	17
17...	0800	101	1800	21.0	70	19
18...	1000	101	1820	21.0	72	20
19...	0800	101	1820	22.0	74	20
20...	1230	101	1790	22.0	82	22
21...	1015	100	1790	22.0	55	15
22...	1145	100	1780	22.0	80	22
23...	0845	100	1780	22.0	51	14
24...	0730	100	1790	21.0	49	13
25...	0800	102	1790	21.0	64	18
26...	0800	101	1840	22.0	59	16
27...	0800	101	1830	22.0	48	13
28...	0900	100	1820	23.0	72	19
29...	0800	100	1770	23.0	30	8.1
30...	0800	100	1960	21.0	28	7.6
JUL						
01...	0800	100	1950	22.0	55	15
02...	0830	100	1950	24.0	51	14
03...	0830	100	2020	24.0	49	13
04...	0300	100	1990	22.0	31	8.4
05...	1330	100	2070	25.0	33	8.9
06...	0930	101	1990	25.0	22	6.0
07...	0745	101	1980	24.0	17	4.6
10...	0845	100	1960	23.0	50	14

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JUL							
11...	0800	99	1960	24.0	26	6.9	--
12...	0845	100	1960	24.0	31	8.4	--
13...	0830	99	2050	24.0	66	18	98
14...	0800	99	2010	24.0	37	9.9	--
15...	0830	99	2000	24.0	35	9.4	--
16...	0830	99	2030	24.0	28	7.5	--
17...	0845	99	2040	24.0	24	6.4	--
18...	0800	101	2040	25.0	21	5.7	--
19...	1245	102	2050	25.0	23	6.3	--
20...	0730	104	2040	23.0	14	3.9	--
21...	0745	105	2040	24.0	28	7.9	--
22...	0800	101	2040	23.0	29	7.9	--
23...	1205	99	2010	25.0	63	17	--
24...	0830	100	1990	24.0	38	10	--
30...	1315	1050	1550	25.0	60	170	--
31...	1030	1050	1150	24.0	39	111	--
AUG							
01...	0930	1050	1060	24.0	47	133	--
02...	1030	1050	878	24.0	41	116	--
03...	1300	1050	822	24.0	43	122	--
04...	0830	1050	755	24.0	31	88	--
05...	0945	1050	719	24.0	38	108	--
06...	0745	1040	714	24.0	44	124	--
07...	0930	1030	705	25.0	37	103	--
08...	0800	1040	699	25.0	30	84	--
09...	0800	1050	715	24.0	70	198	--
10...	0930	1050	732	24.0	46	130	--
13...	1500	99	918	24.0	67	18	--
14...	1050	100	934	23.0	50	14	94
14...	1410	100	963	23.0	91	25	--
15...	0800	100	1000	23.0	54	15	--
16...	0800	99	1020	24.0	64	17	--
17...	0915	100	1130	23.0	68	18	--
18...	0800	99	1010	27.0	43	11	--
19...	0800	99	1300	26.0	89	24	--
20...	1320	99	1260	24.0	96	26	--
21...	1120	100	1240	24.0	96	26	--
22...	1230	99	1250	24.0	106	28	--
23...	0800	100	1150	23.0	81	22	--
25...	0800	99	1210	23.0	50	13	--
26...	0900	99	1210	23.0	59	16	--
27...	0755	99	1160	23.0	43	11	--
28...	0830	99	1360	23.0	65	17	--
29...	0900	98	1560	23.0	66	17	--
30...	1230	99	1700	23.0	90	24	--
SEP							
04...	1030	94	1590	23.0	74	19	--
05...	0800	94	1560	22.0	69	18	--
06...	0800	93	1500	21.0	53	13	--
07...	0800	93	1450	21.0	55	14	--
08...	0830	93	1460	21.0	71	18	--
09...	0830	94	1600	21.0	84	21	--
10...	1130	94	1640	21.0	132	34	--
10...	1500	94	1550	22.0	76	19	98
11...	0800	94	1680	20.0	77	20	--
12...	0740	94	1610	20.0	68	17	--
13...	0800	94	1630	20.0	75	19	--
14...	0830	94	1640	20.0	68	17	--
15...	0800	95	1620	20.0	57	15	--
16...	0800	94	1340	20.0	48	12	--
17...	1330	73	1320	20.0	53	10	--
18...	0930	73	1310	19.0	39	7.7	--
19...	0730	73	1320	19.0	33	6.5	--
20...	0730	73	1340	18.0	44	8.7	--
21...	0730	73	1360	18.0	22	4.3	--
22...	0800	72	1420	19.0	21	4.1	--
23...	0900	72	1400	19.0	34	6.6	--
24...	0800	72	1450	19.0	23	4.5	--
25...	0830	72	1460	19.0	57	11	--
26...	0800	72	1480	18.0	28	5.4	--
27...	0845	72	1690	18.0	61	12	--

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM

LOCATION.--Lat 34°30'30", long 104°16'40", in SE¼SW¼SW¼ sec.1, T.3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003, on right bank of concrete canal, 200 ft downstream from diversion dam on Pecos River, 3.0 mi northwest of Fort Sumner, and at Pecos River mile 684.8.

PERIOD OF RECORD.--March 1939 to February 1943 (published in WSP 1732), April 1954 to current year (monthly discharge only prior to October 1965).

GAGE.--Water-stage recorder. Datum of gage is 4,034.7 ft National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to March 1954 at site 2.4 mi downstream at different datum. April 1954 to March 1965 at site 1.1 mi downstream at datum 1.7 ft lower.

REMARKS.--Records fair. Canal diverts water from Pecos River for irrigation of about 6,600 acres, 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years (1940-42, 1955-84), 49.5 ft^3/s, 35,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 174 ft^3/s July 22, 1941; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	.00	.00	.00	.00	.00	92	82	93	96	98	88
2	65	.00	.00	.00	.00	.00	91	80	89	97	98	88
3	58	.00	.00	.00	.00	.00	91	69	90	97	98	86
4	58	.00	.00	.00	.00	44	91	41	92	103	98	85
5	67	.00	.00	.00	.00	88	91	42	86	98	98	82
6	70	.00	.00	.00	.00	88	91	66	85	99	98	74
7	71	.00	.00	.00	.00	88	91	86	87	51	99	74
8	68	.00	.00	.00	.00	88	91	86	89	.00	99	73
9	64	.00	.00	.00	.00	88	91	86	89	.00	99	73
10	64	.00	.00	.00	.00	88	92	86	88	40	73	72
11	62	.00	.00	.00	.00	88	92	86	88	88	2.2	72
12	58	.00	.00	.00	.00	88	91	86	88	87	2.2	72
13	59	.00	.00	.00	.00	88	90	86	89	88	2.2	73
14	66	.00	.00	.00	.00	88	90	89	93	88	45	69
15	60	.00	.00	.00	.00	88	91	102	94	88	90	62
16	62	.00	.00	.00	.00	88	91	74	99	88	92	75
17	66	.00	.00	.00	.00	89	88	68	98	86	91	76
18	65	.00	.00	.00	.00	90	87	51	99	92	90	70
19	62	.00	.00	.00	.00	88	87	4.4	102	90	90	68
20	63	.00	.00	.00	.00	88	87	4.4	106	88	90	66
21	64	.00	.00	.00	.00	88	87	3.5	95	86	87	65
22	52	.00	.00	.00	.00	89	87	.40	92	82	89	64
23	17	.00	.00	.00	.00	89	86	48	97	76	90	64
24	5.4	.00	.00	.00	.00	89	84	38	96	79	89	63
25	.00	.00	.00	.00	.00	90	83	.36	96	79	87	58
26	.00	.00	.00	.00	.00	90	83	.10	97	85	87	66
27	.00	.00	.00	.00	.00	90	82	1.3	97	96	87	67
28	.00	.00	.00	.00	.00	90	83	56	97	98	87	64
29	.00	.00	.00	.00	.00	90	82	73	95	98	86	66
30	.00	.00	.00	.00	---	91	78	79	96	98	87	66
31	.00	---	.00	.00	---	91	---	93	---	98	87	---
TOTAL	1412.40	.00	.00	.00	.00	2442.00	2641	1767.46	2802	2539.00	2515.6	2141
MEAN	45.6	.000	.000	.000	.000	78.8	88.0	57.0	93.4	81.9	81.1	71.4
MAX	71	.00	.00	.00	.00	91	92	102	106	103	99	88
MIN	.00	.00	.00	.00	.00	.00	78	.10	85	.00	2.2	58
AC-FT	2800	.00	.00	.00	.00	4840	5240	3510	5560	5040	4990	4250

CAL YR 1983 TOTAL 18953.80 MEAN 51.9 MAX 111 MIN .00 AC-FT 37590
WTR YR 1984 TOTAL 18260.46 MEAN 49.9 MAX 106 MIN .00 AC-FT 36220

08386000 PECOS RIVER NEAR ACME, NM
(Surveillance network station)

LOCATION.--Lat 33°32'10", long 104°22'34", in SW¼NW¼ sec.14, T.9 S., R.25 E., Chaves County, Hydrologic Unit 13060007, on right bank 3.0 mi downstream from U.S. Highway 70, 3.7 mi downstream from Salt Creek, 4.7 mi southwest of Acme, 14 mi northeast of Roswell, and at mile 585.3.

DRAINAGE AREA.--11,380 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1921 to June 1923, July 1937 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 3,507 ft, from topographic map. Prior to Nov. 1, 1938, at site on highway bridge 3 mi upstream at various datums. Since Oct. 25, 1963, supplemental water-stage recorder at site opposite base gage at same datum.

REMARKS.--Records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980 and by Lake Sumner (station 08384000) since August 1937. Diversions for irrigation of about 20,000 acres, 1959 determination above station.

AVERAGE DISCHARGE.--47 years (1938-84), 180 ft^3/s, 130,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft^3/s Sept. 23, 1941, gage height, 13.71 ft, from rating curve extended above 27,000 ft^3/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 28, 1937, reached a discharge of 53,000 ft^3/s, gage height, 14.82 ft, from floodmarks, site and datum then in use, by slope-area method, but may have been exceeded by the flood of Oct. 1, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft^3/s Aug. 11, gage height, 6.07 ft, no peak above base of 2,500 ft^3/s; no flow part of each day July 24, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	36	20	12	13	2.9	14	15	40	31	843	22
2	166	35	20	21	13	2.7	14	20	49	24	872	20
3	130	479	21	32	12	2.2	14	14	71	24	944	28
4	82	213	21	34	12	2.2	14	9.5	66	23	940	22
5	57	359	22	39	12	3.5	14	78	37	23	940	39
6	45	152	22	34	11	5.1	14	655	27	20	946	30
7	40	96	21	29	11	5.5	14	748	50	93	1050	21
8	38	63	20	25	10	5.3	14	795	28	56	1410	19
9	31	53	20	23	10	4.9	13	790	17	56	1530	17
10	30	47	18	20	9.0	4.5	10	780	13	51	1760	16
11	27	41	17	18	8.2	3.2	11	772	10	36	1530	15
12	25	38	17	17	6.6	2.4	11	799	10	29	743	14
13	30	34	16	16	6.2	7.7	10	835	9.7	27	558	13
14	28	32	15	14	5.5	9.5	11	843	14	22	239	12
15	24	28	16	13	4.0	9.0	12	771	32	11	171	9.9
16	27	28	16	12	4.0	8.6	12	753	55	5.8	143	12
17	73	27	16	11	3.7	7.7	12	831	83	2.7	166	117
18	42	25	14	10	3.2	6.2	12	872	553	2.7	124	134
19	188	25	12	10	3.2	9.5	11	825	341	2.9	93	76
20	461	25	10	11	3.7	10	12	857	520	13	82	52
21	319	23	8.0	11	4.0	10	10	850	324	28	67	34
22	186	22	6.0	12	4.7	12	9.0	853	399	18	65	25
23	96	21	6.0	11	4.7	15	8.6	571	228	4.7	64	19
24	108	20	6.0	13	4.3	14	7.7	271	146	1.4	92	15
25	80	20	6.0	15	3.9	14	7.3	141	95	1.9	143	13
26	65	20	6.0	18	4.0	14	7.3	114	71	1.9	117	11
27	55	18	5.0	21	4.1	15	7.7	147	56	5.5	68	11
28	49	18	5.0	21	4.1	14	7.7	102	56	.27	46	19
29	44	19	4.5	19	3.7	14	5.8	77	50	471	37	19
30	41	20	5.0	15	---	13	6.6	64	36	735	30	23
31	38	---	10	15	---	14	---	48	---	791	27	---
TOTAL	2787	2037	421.5	572	198.8	261.6	326.7	15300.5	3486.7	2611.77	15840	877.9
MEAN	89.9	67.9	13.6	18.5	6.86	8.44	10.9	494	116	84.3	511	29.3
MAX	461	479	22	39	13	15	14	872	553	791	1760	134
MIN	24	18	4.5	10	3.2	2.2	5.8	9.5	9.7	.27	27	9.9
AC-FT	5530	4040	836	1130	394	519	648	30350	6920	5180	31420	1740

CAL YR 1983 TOTAL 61044.77 MEAN 167 MAX 958 MIN .00 AC-FT 121100
WTR YR 1984 TOTAL 44721.47 MEAN 122 MAX 1760 MIN .27 AC-FT 88710

08386000 PECOS RIVER NEAR ACME, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
NOV 16...	1100	28	3300	3020	8.1	7.9	12.0	11.5	--	13	1100
JAN 18...	1500	9.9	--	--	8.2	--	-4.5	1.0	--	11	--
MAR 19...	1130	9.5	--	4930	8.3	7.9	14.0	15.0	9.1	22	2000
MAY 31...	1130	47	2890	2770	8.0	8.0	26.0	18.0	8.6	25	1300
JUL 18...	1130	2.9	3400	3360	7.8	8.2	33.0	24.0	7.9	--	1400
SEP 19...	1130	78	1300	--	8.1	--	25.0	22.0	--	30	--

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV 16...	1000	320	80	250	3	3.5	--	--	--	1200	190
JAN 18...	--	--	--	--	--	--	--	--	--	--	--
MAR 19...	1900	590	140	430	4	5.3	130	6.0	110	2000	670
MAY 31...	1200	380	77	170	2	3.5	100	.000	--	1300	220
JUL 18...	1300	410	92	270	3	5.3	120	.000	--	1300	390
SEP 19...	--	--	--	--	--	--	180	4.0	--	--	--

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV 16...	.40	13	2100	.10	.13	.060	.64	.80	.040	.010	2.3
JAN 18...	--	--	--	.20	.22	.070	.33	.60	<.010	.020	2.0
MAR 19...	.60	8.7	3900	<.10	.19	.220	-.02	--	.020	.020	2.3
MAY 31...	.50	9.9	2200	<.10	.10	.080	.52	--	.020	.010	2.7
JUL 18...	.70	11	2500	.10	<.10	.050	.15	.30	.040	.020	2.7
SEP 19...	--	--	--	.40	.36	.100	1.2	1.7	.380	<.010	8.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV 16...	1100	1	1	220	<1	1	10	10	8	<1
MAR 19...	1130	--	--	360	--	--	--	--	--	--
MAY 31...	1130	--	--	170	--	--	--	--	--	--
JUL 18...	1130	2	1	300	<1	<1	--	20	5	1

08386000 PECOS RIVER NEAR ACME, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV 16...	50	<1	<1	<.1	.1	1	1	50	20
MAR 19...	130	--	--	--	--	--	--	--	--
MAY 31...	430	--	--	--	--	--	--	--	--
JUL 18...	60	1	<1	.3	<.1	<1	<1	<10	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV 16...	1100	<2.0	6.2	100	1	<1	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV 16...	<10	<1	420	<10	180	<.01	3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV 16...	1100	<51	2.1	<29	3.4	<25	2.9	.30	7.3

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
MAR 19...	1130	--	--	--	--	--	--	--	--	--
SEP 19...	1130	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
MAR 19...	--	--	--	--	--	--	--	--	--
SEP 19...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

08386000 PECOS RIVER NEAR ACME, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	PARATHION, TOTAL (UG/L) (39540)	TOXAPHENE, TOTAL (UG/L) (39400)	TOTAL TRITHION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PERTHANE TOTAL (UG/L) (39034)	NAPHTHALENES, POLYCHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
MAR 19...	--	--	--	<.01	<.01	<.01	--	--	--
SEP 19...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 16...	1100	28	11.5	151	11	84
JAN 18...	1500	9.9	1.0	29	.78	82
MAR 19...	1130	9.5	15.0	30	.77	84
MAY 31...	1130	47	18.0	97	12	60
JUL 18...	1130	2.9	24.0	63	.49	40
SEP 19...	1130	78	22.0	692	146	94

08386900 F. HERRERA DITCH-S. AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'35", long 105°36'50", in NE¼NE¼SW¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on left bank, at upstream end of flume over Grapevine Canyon, 1.0 mi below point of diversion, 0.7 mi east of Hollywood and junction of U.S. Highway 70 and State Highway 37. Point of diversion at Rio Ruidoso mile 24.5.

PERIOD OF RECORD.--May 1960 to Sept. 1984 (discontinued). Monthly diversion in acre-ft prior to January 1973, published as a supplement to Rio Ruidoso at Hollywood (station 08387000).

GAGE.--Water-stage recorder. Altitude of gage is 6,430 ft, from Topographic Division. Prior to Mar. 20, 1962, at site 315 ft downstream at datum 12.79 ft lower.

REMARKS.--Records poor. Ditch is for diversion of water from Rio Ruidoso 1.0 mi upstream for irrigation below station 08387000.

AVERAGE DISCHARGE.--24 years, 0.37 ft^3/s, 268 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6.6 ft^3/s June 15, 1961; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4.3 ft^3/s Aug. 10; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.6
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.3
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6
4	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.93	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	4.3	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.2	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.3	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
16	.00	.00	.00	.00	.00	.00	.00	1.1	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.17	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.38	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.89	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.62	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.62	.00	.00	.00	.00	.00	1.27	.00	1.00	17.64	6.50
MEAN	.000	.021	.000	.000	.000	.000	.000	.041	.000	.032	.57	.22
MAX	.00	.38	.00	.00	.00	.00	.00	1.1	.00	1.0	4.3	2.6
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	1.2	.00	.00	.00	.00	.00	2.5	.00	2.0	35	13

CAL YR 1983 TOTAL 4.08 MEAN .011 MAX .83 MIN .00 AC-FT 8.1
WTR YR 1984 TOTAL 27.03 MEAN .074 MAX 4.3 MIN .00 AC-FT 54

08387000 RIO RUIDOSO AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'43", long 105°36'34", in SW¼SE¼NE¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on right upstream bridge abutment on road leading to Ruidoso Downs Race Track, 0.2 mi north of U.S. Highway 70, 1.1 mi east of the Hollywood Post Office, 1.8 mi downstream from Galvilan Canyon, 2.8 mi downstream from Carrizo Creek, and at mile 23.4.

DRAINAGE AREA.--120 mi^2, approximately.

PERIOD OF RECORD.--March 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,365.42 ft National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1961, at datum 0.30 ft higher. Oct. 14, 1961, to Mar. 8, 1962, at datum 0.60 ft higher. Mar. 9, 1962, to June 18, 1965, at datum 1.0 ft higher.

REMARKS.--Records good except those for period of missing or faulty gage-height record, Aug. 11-16, which are poor. Figures of discharge do not include F. Herrera ditch-S (station 08386900), which diverts from right bank 1.5 mi upstream and bypasses station for irrigation of 75 acres, 1959 determination. Village of Ruidoso diverts from right bank 7.0 mi upstream for municipal use and returns a portion on this water as effluent from sewage disposal plant downstream from the gage. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--28 years (1954-1981), 14.9 ft^3/s, 10,800 acre-ft/yr, for period when sewage disposal plant effluent was discharged upstream from gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,120 ft^3/s Aug. 11, 1984, gage height, 9.68 ft from rating curve extended above 510 ft^3/s on basis of slope-area measurement of peak flow; maximum gage-height, 10.05 ft present datum, June 17, 1965; minimum discharge, 0.30 ft^3/s Jan. 1, 1962, May 8-9, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*), from rating curve extended above 510 ft^3/s on basis of slope-area measurement of peak flow:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 11	Unknown	*2120	9.68	Aug. 13	Based on information from local residents, a flood of moderate size occurred on this day.		
Aug. 12	2030	780	5.42				

Minimum discharge, 5.8 ft^3/s Feb. 21, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	13	10	11	10	9.2	15	16	14	19	12	52
2	41	13	13	11	10	9.4	15	15	18	20	22	47
3	65	14	14	11	10	10	15	15	14	14	85	39
4	52	15	12	11	11	11	15	17	13	12	62	34
5	38	14	12	11	11	11	15	20	11	11	61	31
6	30	13	11	11	12	18	17	24	11	10	52	30
7	25	13	11	12	12	15	19	25	10	9.8	64	27
8	21	13	11	13	12	13	18	24	9.6	9.2	124	25
9	20	13	11	13	12	13	17	23	9.2	9.2	223	24
10	17	12	11	13	11	13	17	22	8.6	12	335	23
11	16	12	11	13	11	13	17	22	8.0	8.8	903	23
12	15	12	11	13	11	14	20	22	7.6	8.2	649	22
13	14	12	11	13	10	14	22	22	14	9.4	453	22
14	14	12	11	13	9.9	15	24	21	11	8.6	306	22
15	13	11	11	13	9.5	16	24	32	11	8.2	219	21
16	13	11	10	12	9.1	19	25	58	14	8.0	167	20
17	13	11	10	12	9.0	23	25	64	15	9.5	134	18
18	12	12	9.6	12	8.6	24	27	58	18	13	108	18
19	20	10	10	12	8.3	23	28	47	16	13	94	17
20	24	10	10	10	8.4	22	27	40	20	13	83	15
21	18	14	10	18	11	22	25	34	17	11	75	14
22	17	15	10	11	8.5	24	22	30	16	10	69	12
23	16	10	9.9	10	8.2	23	19	28	16	9.3	60	13
24	16	9.7	11	10	8.3	21	19	25	27	10	67	12
25	16	10	15	10	8.4	19	19	23	22	9.5	102	12
26	15	10	10	9.3	8.4	18	20	21	22	9.2	116	15
27	15	9.8	13	9.3	10	19	19	18	24	9.1	105	14
28	14	9.3	13	9.3	8.9	17	18	17	28	9.9	91	13
29	13	9.8	18	9.7	8.8	16	18	16	25	11	78	12
30	13	9.7	15	9.7	---	16	17	16	22	9.4	60	12
31	13	---	11	10	---	15	---	15	---	11	49	---
TOTAL	646	353.3	356.5	356.3	286.3	515.6	598	830	472.0	335.3	5028	659
MEAN	20.8	11.8	11.5	11.5	9.87	16.6	19.9	26.8	15.7	10.8	162	22.0
MAX	65	15	18	18	12	24	28	64	28	20	903	52
MIN	12	9.3	9.6	9.3	8.2	9.2	15	15	7.6	8.0	12	12
AC-FT	1280	701	707	707	568	1020	1190	1650	936	665	9970	1310

CAL YR 1983 TOTAL 9330.8 MEAN 25.6 MAX 141 MIN 5.7 AC-FT 18510
WTR YR 1984 TOTAL 10436.3 MEAN 28.5 MAX 903 MIN 7.6 AC-FT 20700

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08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM

LOCATION.--33°20'57", long 104°51'05", in NE¼NE¼ sec.20, T.11 S, R.21 E., Chaves County, Hydrologic Unit 13060008, on right bank 15 ft downstream from county road bridge at Diamond A Ranch, 1.3 mi south of U.S. Highway 70-380, 13 mi upstream from Two Rivers Reservoir, 21 mi upstream from mouth of Rocky Arroyo, 18 mi west of Roswell, and at mile 44.7.

DRAINAGE AREA.--947 mi^2, contributing area.

PERIOD OF RECORD.--May 1908 to August 1909, May 1939 to current year. Monthly discharge only for 1908-9, published in Technical Report No. 7, State of New Mexico, State Engineer Office, Streamflow and Reservoir Content 1888-1954.

REVISED RECORDS.--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,190 ft, from topographic map. Prior to Nov. 11, 1965 at site on left bank at same datum. Supplemental water-stage recorder on left bank Nov. 11, 1965, to December 1972, at same datum.

REMARKS.--Records poor. Diversions and ground-water withdrawals above station for irrigation above and below station of about 6,500 acres, 1959 determination. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years (1939-84), 21.3 ft^3/s, 15,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,800 ft^3/s June 18, 1965, gage height, 26.40 ft, from rating curve extended above 3,100 ft^3/s on basis of slope-area measurement of peak flow; maximum gage height 28.78 ft, Sept. 22, 1941; no flow most of the time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on June 1, 1937, reached a discharge of 24,900 ft^3/s at Riverside about 13 mi upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904 and July 25, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s and maximum (*), from rating curve extended above 16,000 ft^3/s on basis of slope-area measurements of peak flow:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 3	0300	1050	14.23	Aug. 10	1700	2490	21.13
June 12	2200	730	a17.90	Aug. 20	2000	*32200	a26.04

a from floodmarks.

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	2.9	19	77	.00	.00	.00	.00	.00	.00	.01	107
2	3.7	2.5	19	40	.00	.00	.00	.00	.05	.00	.11	111
3	.00	221	19	5.9	.00	.00	.00	.00	.14	.00	.12	124
4	22	51	23	1.6	.00	.00	.00	.00	.00	.00	.04	81
5	16	65	21	.00	.00	1.1	.18	.00	.00	.00	.00	68
6	7.5	50	20	.00	.00	2.0	2.2	.00	.00	.00	.00	54
7	2.0	30	18	.00	.00	1.9	1.1	.00	.00	.00	.03	43
8	.00	16	17	.00	.00	.00	1.2	.00	.00	.00	36	32
9	.00	10	16	.00	.00	.00	.00	.00	.00	.00	267	22
10	2.5	9.0	14	.00	.00	.00	.00	.00	.00	.00	904	14
11	1.5	7.9	14	.00	.00	.00	.00	.00	.00	.00	470	9.9
12	.00	11	14	.00	.00	.00	.00	.00	185	.00	502	11
13	.00	14	8.1	.00	.00	.00	.00	.00	525	.00	587	10
14	.00	18	4.7	.00	.00	.00	.00	.00	30	.00	533	7.1
15	.00	17	2.8	.00	.00	.00	.00	.04	1.0	.00	400	7.5
16	.00	18	.50	.00	.00	.00	.00	.16	.00	.00	368	5.9
17	.00	20	.00	.00	.00	.00	.00	.13	.00	.00	302	5.1
18	19	18	.00	.00	.00	.00	.00	.10	.00	.00	250	3.5
19	118	16	.00	.00	.00	.00	.00	.95	.00	.00	203	1.6
20	53	17	5.6	.00	.00	.00	.00	.24	.00	.00	589	.00
21	50	18	.00	.00	.00	.00	.00	.04	.00	.00	83	.00
22	36	15	.00	.00	.00	.00	.00	.00	.00	.00	182	.00
23	27	27	2.2	.00	.00	.00	.00	.00	.00	.00	147	.00
24	22	22	.00	.00	.00	.00	.00	.00	.07	.00	112	.00
25	17	21	.00	.00	.00	.00	.00	.00	.09	.00	187	.00
26	17	20	4.8	.00	.00	.00	.00	.00	.05	.00	316	.00
27	12	21	11	.00	.00	.00	.00	.00	.04	.00	274	.00
28	4.6	21	3.3	.00	.00	.00	.00	.04	.02	.00	268	.00
29	4.4	19	43	.00	.00	.00	.00	.52	.00	.00	198	.00
30	3.7	20	89	.00	---	.00	.00	.18	.00	.00	159	.00
31	3.4	---	70	.00	---	.00	---	.05	---	.00	129	---
TOTAL	461.30	818.3	459.00	124.50	.00	5.00	4.68	2.45	741.46	.00	7466.31	717.60
MEAN	14.9	27.3	14.8	4.02	.000	.16	.16	.079	24.7	.000	241	23.9
MAX	118	221	89	77	.00	2.0	2.2	.95	525	.00	904	124
MIN	.00	2.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	915	1620	910	247	.00	9.9	9.3	4.9	1470	.00	14810	1420

CAL YR 1983 TOTAL 6746.20 MEAN 18.5 MAX 221 MIN .00 AC-FT 13380
WTR YR 1984 TOTAL 10800.60 MEAN 29.5 MAX 904 MIN .00 AC-FT 21420

08390600 TWO RIVERS RESERVOIR NEAR ROSWELL, NM

LOCATION.--08390610 Rio Hondo Reservoir: Lat 33°17'55", long 104°43'20", in SW¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, near center of Diamond A Dam on Rio Hondo, 13 mi southwest of Roswell at mile 33.4; 08390620 Rocky Arroyo Reservoir: Lat 33°16'20", long 104°43'20", in NW¼SE¼NE¼ sec.16, T.12 S., R.22 E., at left end of Rocky Dam on Rocky Arroyo, and 14 mi southwest of Roswell.

DRAINAGE AREA.--1,027 mi^2; Rio Hondo, 963 mi^2; Rocky Arroyo, 64 mi^2.

PERIOD OF RECORD.--July 1963 to current year (prior to October 1965 month end contents only). Proir to October 1966 contents at 0800 hours.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir, and on Rocky Arroyo, which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 166,200 acre-ft at elevation 4,032.0 ft, crest of ungated spillway. Capacity of Rio Hondo Reservoir, 181 acre-ft between elevations 3,957.0 ft, sill of outlet gate, and 3,980.0. Capacity of Rocky Arroyo Reservoir, 13,410 acre-ft between elevations 3,945.0, sill of outlet gate, and 3,980.0 ft. No dead storage in Rio Hondo Reservoir or Rocky Arroyo Reservoir. Primary objective of project is flood control. Outlet conduits in Rocky Dam have fixed openings. Figures given herein represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Rio Hondo Reservoir: maximum contents at 0800 hours, 1,260 acre-ft July 29, 1965, elevation, 3,985.7; no storage most of time.

Rocky Arroyo Reservoir: maximum contents at 0800 hours, 6,090 acre-ft June 18, 1965, elevation 3,970.7 ft; no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents at 2400 hours of Rio Hondo Res., 714 acre-ft August 13, elevation, 3,985.39 ft; Rocky Arroyo Res. at 2400 hours, 1,517 acre-ft August 13, elevation, 3,961.02 ft; no contents both reservoirs most of time.

CONTENTS, IN ACRE-FEET, AND ELEVATION, IN FEET, WATER YEAR, OCTOBER 1983 TO SEPTEMBER 1984.

NO CONTENTS AT 2400 HOURS DURING YEAR EXCEPT:

RIO HONDO RESERVOIR

DATE	ELEVATION	CONTENTS
Aug. 9	3,980.15	190
10	3,983.27	446
11	3,985.26	694
12	3,985.24	692
13	3,985.39	714
14	3,984.00	527
15	3,983.52	469
16	3,983.02	418
17	3,981.10	252
18	3,976.61	60
20	3,978.05	97
21	3,980.98	243
26	3,971.43	6
27	3,969.37	2

ROCKY ARROYO RESERVOIR

DATE	ELEVATION	CONTENTS
Aug. 9	3,945.65	3
10	3,949.92	77
11	3,954.85	427
12	3,954.33	380
13	3,961.02	1517
14	3,959.95	1279
15	3,955.22	488
16	3,953.59	312

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 500 ft downstream from outlet conduit of Diamond A Dam (Two Rivers Reservoir), 13 mi southwest of Roswell, and at mile 33.3. Mouth at Pecos River mile 566.0.

DRAINAGE AREA.--963 mi^2, contributing area.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,949.68 ft National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 6,500 acres, 1959 determination, above station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam; flow from reservoir can also be discharged into Rocky Arroyo through Rocky Dam (see REMARKS for station 08390600). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 9.09 ft^3/s, 6,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft^3/s July 29, 1965, gage height, 4.91 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 446 ft^3/s Aug. 21, gage height, 3.41 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	75
2	2.8	.04	.00	.00	.00	.00	.00	.00	.44	.00	.00	70
3	.31	1.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	83
4	3.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	57
5	8.9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	52
6	3.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	45
7	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	38
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.6	30
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	115	24
10	.00	.00	.00	3.2	.00	.00	.00	.00	.00	.00	96	18
11	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00	40	14
12	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	40	12
13	.00	.00	.00	.00	.00	.00	.00	.00	80	.00	97	10
14	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00	237	8.0
15	.00	.00	.00	.00	.00	.00	.00	.00	2.9	.00	353	3.3
16	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	330	4.1
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	324	2.0
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	300	1.1
19	52	.00	.00	.00	.00	.00	.00	.00	.10	.00	192	.03
20	62	.00	.00	.00	.00	.00	.00	.00	.00	.00	172	.00
21	54	.00	.00	.00	.00	.00	.00	.00	.00	.00	294	.00
22	36	.00	.00	.00	.00	.00	.00	.00	.00	.00	246	.00
23	25	.00	.00	.00	.00	.00	.00	.00	.00	.00	106	.00
24	18	.00	.00	.00	.00	.00	.00	.00	.00	.00	106	.00
25	10	.00	.00	.00	.00	.00	.00	.00	.00	.00	114	.00
26	9.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	247	.00
27	8.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	294	.00
28	.74	.00	.00	.00	.00	.00	.00	.00	.00	.00	220	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	143	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	96	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	83	---
TOTAL	303.77	1.34	.00	3.36	.00	.00	.00	.00	87.45	.00	4249.60	546.53
MEAN	9.80	.045	.000	.11	.000	.000	.000	.000	2.92	.000	137	18.2
MAX	62	1.3	.00	3.2	.00	.00	.00	.00	80	.00	353	83
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	603	2.7	.00	6.7	.00	.00	.00	.00	173	.00	8430	1080

CAL YR 1983 TOTAL 4204.11 MEAN 11.5 MAX 141 MIN .00 AC-FT 8340
WTR YR 1984 TOTAL 5192.05 MEAN 14.2 MAX 353 MIN .00 AC-FT 10300

08393500 RIO HONDO AT ROSWELL, NM

LOCATION.--Lat 33°22'19", long 104°32'42", in NE¼SE¼ sec.7, T.11 S., R.24 E., Chaves County, Hydrologic Unit 13060008, on left bank, 0.3 mi upstream from Sunset Ave. bridge in Roswell, 6.3 mi downstream from Rocky Arroyo and 11.7 mi upstream from mouth.

DRAINAGE AREA.--1,070 mi^2, approximately, contributing area.

PERIOD OF RECORD.--February 1981 to current year. Records for June 1903 to February 1906, published in WSP 358, are unreliable and should not be used.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 3,615 ft, from topographic map.

REMARKS.--Records fair. Flow regulated by Two Rivers Reservoir (station 08390600). Diversions and ground-water withdrawals for irrigation above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355 ft^3/s May 3, 1981, gage height 7.5 ft, from floodmarks, from rating curve extended above 110 ft^3/s; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 316 ft^3/s Aug. 15, gage height, 6.70 ft; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	68
2	7.3	.12	.00	.00	.00	.00	.00	.00	21	.00	.00	61
3	1.0	4.4	.00	.00	.00	.00	.00	.00	1.5	.00	.05	79
4	.00	.78	.00	.00	.00	.00	.00	.00	.00	.00	.00	54
5	4.5	1.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	48
6	2.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	43
7	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	35
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.8	27
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	145	18
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	136	11
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	135	7.0
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	147	4.8
13	.00	.00	.00	.00	.00	.00	.00	.00	55	.00	174	3.9
14	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00	225	3.0
15	.00	.00	.00	.00	.00	.00	.00	.00	.44	.00	302	.45
16	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00	287	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.34	.00	240	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.48	.00	203	.00
19	22	.00	.00	.00	.00	.00	.00	.00	.00	.00	100	.00
20	47	.00	.00	.00	.00	.00	.00	.00	.00	.00	83	.00
21	44	.00	.00	.00	.00	.00	.00	.00	.00	.00	150	.00
22	32	.00	.00	.00	.00	.00	.00	.00	.00	.00	144	.00
23	15	.00	.00	.00	.00	.00	.00	.00	.00	.00	107	.00
24	9.2	.00	.00	.00	.00	.00	.00	.00	.00	.48	75	.00
25	2.8	.00	.00	.00	.00	.00	.00	.00	.00	1.2	78	.00
26	.92	.00	.00	.00	.00	.00	.00	.00	.00	.00	158	.00
27	.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	203	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	174	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	141	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	103	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	87	---
TOTAL	199.70	6.60	.00	.00	.00	.00	.00	.00	80.96	1.68	3606.92	463.15
MEAN	6.44	.22	.000	.000	.000	.000	.000	.000	2.70	.054	116	15.4
MAX	47	4.4	.00	.00	.00	.00	.00	.00	55	1.2	302	79
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	396	13	.00	.00	.00	.00	.00	.00	161	3.3	7150	919

CAL YR 1983 TOTAL 2465.02 MEAN 6.75 MAX 98 MIN .00 AC-FT 4890
WTR YR 1984 TOTAL 4359.01 MEAN 11.9 MAX 302 MIN .00 AC-FT 8650

08394100 PECOS RIVER NEAR HAGERMAN, NM

LOCATION.--Lat 33°10'08", long 104°18'24", in SE¼SW¼SE¼ sec.23, T.13 S., R.26 E., Chaves County, Hydrologic Unit 13060007, on left bank 3.4 mi upstream from Rio Felix, 4.9 mi north of Hagerman, and at mile 544.6.

DRAINAGE AREA.--13,630 mi^2, approximately (contributing area).

PERIOD OF RECORD.--February 1968 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 3,390 ft, from topographic map.

REMARKS.--Records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 80,000 acres above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined 3,700 ft^3/s Sept. 11, 1969; no flow at times in 1971, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge greater than 1,200 ft^3/s, Aug. 8-12; minimum, 7.8 ft^3/s April 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	58	46	42	41	21	28	11	67	77	747	100
2	130	55	46	45	40	25	29	12	63	66	805	87
3	151	363	47	48	38	26	30	15	67	58	838	81
4	114	304	48	54	36	27	30	26	78	50	897	108
5	87	412	46	61	35	28	29	22	75	47	861	81
6	68	252	46	64	34	30	28	157	59	45	884	59
7	56	178	46	68	33	31	26	549	51	40	873	60
8	53	137	46	63	32	31	26	704	52	67	a	48
9	56	100	47	59	33	31	28	741	57	71	a	42
10	57	83	46	55	32	30	26	726	41	60	a	41
11	46	75	44	52	31	27	25	753	34	66	a	41
12	44	69	43	50	30	27	23	778	29	61	a	38
13	44	64	42	47	30	26	19	766	26	45	691	35
14	41	60	41	46	29	24	18	785	73	40	465	32
15	42	54	41	45	27	25	17	817	57	37	425	30
16	39	50	41	44	26	27	18	[illegible]	44	31	435	29
17	38	47	41	44	26	25	19	1040	79	23	388	28
18	74	47	41	44	24	23	19	1100	167	20	366	102
19	89	45	39	43	24	22	19	1060	326	18	295	120
20	341	43	35	41	24	23	18	1050	206	16	238	88
21	449	42	40	39	24	25	16	994	480	14	236	71
22	298	46	39	41	25	26	17	984	296	25	274	57
23	208	47	39	46	25	25	17	896	207	32	269	46
24	170	47	41	46	25	25	15	315	147	21	190	38
25	141	46	41	45	24	28	15	177	132	16	160	34
26	118	46	41	49	21	31	9.7	151	99	19	211	32
27	100	45	48	52	21	30	11	129	82	13	306	31
28	84	44	42	53	21	30	10	129	148	12	329	36
29	75	44	40	48	20	31	11	103	136	33	235	48
30	67	45	40	47	---	30	9.8	88	99	463	168	47
31	61	---	46	43	---	29	---	77	---	616	123	---
TOTAL	3485	2948	1329	1524	831	839	606.5	16105	3477	2202	---	1690
MEAN	112	98.3	42.9	49.2	28.7	27.1	20.2	520	116	71.0	---	56.3
MAX	449	412	48	68	41	31	30	1100	480	616	---	120
MIN	38	42	35	39	20	21	9.7	11	26	12	---	28
AC-FT	6910	5850	2640	3020	1650	1660	1200	31940	6900	4370	---	3350

CAL YR 1983 TOTAL 70130.5 MEAN 192 MAX 1060 MIN 5.0 AC-FT 139100

a Maximum discharge greater than 1200 ft^3/s.

08394500 RIO FELIX AT OLD HIGHWAY BRIDGE, NEAR HAGERMAN, NM

LOCATION.--Lat 33°07'30", long 104°20'40", in SW¼SW¼SE¼ sec.4, T.14 S., R.26 E., Chaves County, Hydrologic Unit 13060009, near left bank on downstream side of abandoned bridge pier, 0.6 mi upstream from alternate U.S. Highway 285, 1.3 mi northwest of Hagerman, and 2.7 mi upstream from mouth. Mouth at Pecos River mile 541.4.

DRAINAGE AREA.--932 mi^2, contributing area.

PERIOD OF RECORD.--April 1939 to current year. March 1932 to April 1939 at site 1 mi downstream; records for periods of low flow not equivalent, owing to inflow between sites.

REVISED RECORDS.--WSP 928: 1940(M). WSP 1562: 1939-40, 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,403.40 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good, except for Nov. 3, which is fair. Diversions for irrigation of about 350 acres, 1959 determination, above station. Several observation of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 13.8 ft^3/s, 10,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft^3/s Oct. 7, 1954, gage height, 27.5 ft, from floodmarks, from rating curve extended above 12,000 ft^3/s on basis of slope-area measurement at point 5.5 mi upstream from gage (adjusted for channel storage); no flow for many periods.
Flood in 1954 is the highest since 1894 (information from local residents).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 1, 1904, is probably second highest since 1894; another major flood occurred in April 1915.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 3	1000	*7060	a16.20	Aug. 11	1330	3750	a14.32

a from floodmarks

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.91
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.40
3	.00	1530	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.5
4	.00	97	.00	.00	.00	.00	.00	.00	.00	.00	.00	11
5	.00	87	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.5
6	.00	19	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.0
7	.00	5.9	.00	.00	.00	.00	.00	.00	.00	.67	.00	2.2
8	.00	5.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25
9	.00	5.9	.00	.00	.00	.00	.00	.00	.00	.00	.16	.00
10	.00	3.9	.00	.00	.00	.00	.00	.00	.00	.00	16	.00
11	.00	3.6	.00	.00	.00	.00	.00	.00	.00	.00	1450	.00
12	.00	5.6	.00	.00	.00	.00	.00	.00	.00	.00	657	.00
13	.00	5.4	.00	.00	.00	.00	.00	.00	.00	.00	51	.00
14	.00	5.6	.00	.00	.00	.00	.00	.00	.00	.00	27	.00
15	.00	4.8	.00	.00	.00	.00	.00	.00	.00	.00	40	.00
16	.00	4.8	.00	.00	.00	.00	.00	.00	.00	.00	30	.00
17	.00	9.1	.00	.00	.00	.00	.00	.00	.00	.00	25	.00
18	.00	7.4	.00	.00	.00	.00	.00	.00	.00	.00	13	.00
19	.00	7.2	.00	.00	.00	.00	.00	.00	.00	.00	3.4	.00
20	2.8	6.1	.00	.00	.00	.00	.00	.00	.00	.00	3.5	.00
21	9.0	5.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.06	1.6	.00	.00	.00	.00	.00	.00	.00	.00	1.7	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.3	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.8	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.8
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	8.6
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	11.86	1820.90	.00	.00	.00	.00	.00	.00	.00	.67	2328.17	42.16
MEAN	.38	60.7	.000	.000	.000	.000	.000	.000	.000	.022	75.1	1.41
MAX	9.0	1530	.00	.00	.00	.00	.00	.00	.00	.67	1450	11
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	24	3610	.00	.00	.00	.00	.00	.00	.00	1.3	4620	84

CAL YR 1983 TOTAL 1977.07 MEAN 5.42 MAX 1530 MIN .00 AC-FT 3920
WTR YR 1984 TOTAL 4203.76 MEAN 11.5 MAX 1530 MIN .00 AC-FT 8340

08395500 PECOS RIVER NEAR LAKE ARTHUR, NM

LOCATION.--Lat 32°59'18", long 104°19'20", in SW¼NE¼ sec.27, T.15 S., R.26 E., Chaves County, Hydrologic Unit 1306007, on left bank 400 ft upstream from county bridge, 2.5 mi east of Lake Arthur, 7 mi upstream from Cottonwood Creek, 11 mi northeast of Artesia, and at mile 522.0.

DRAINAGE AREA.--14,760 mi^2, approximately (contributing area).

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,327.07 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 124,000 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 226 ft^3/s, 163,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft^3/s Sept. 24, 1941, gage height, 21.90 ft, from rating curve extended above 16,100 ft^3/s on basis of slope-area measurement at gage height 21.77 ft; no flow at times in 1947, 1953-4, 1962, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1937, reached a stage of 21.77 ft, discharge, 51,500 ft^3/s, on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,420 ft^3/s Aug. 12, gage height, 10.07 ft; minimum, 3.2 ft^3/s April 27, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	76	52	65	52	28	17	16	70	94	628	148
2	163	71	55	55	46	28	18	17	55	79	695	114
3	146	932	55	56	42	29	19	17	53	66	706	100
4	138	1130	55	58	46	29	19	16	60	56	728	88
5	101	486	57	65	45	30	18	22	64	50	693	100
6	94	464	53	72	44	31	14	23	51	40	668	79
7	69	257	54	74	40	33	9.0	514	37	36	660	62
8	60	161	54	77	40	33	12	645	25	22	890	57
9	57	127	54	72	39	34	16	673	31	41	1290	49
10	57	101	55	65	38	34	19	672	32	27	1690	44
11	55	88	53	61	38	34	18	668	15	22	1980	43
12	53	80	53	60	39	34	18	679	9.6	25	2640	36
13	52	81	51	56	39	33	15	690	9.7	24	1240	25
14	51	78	51	54	29	30	8.5	713	8.5	18	511	20
15	48	74	50	54	35	27	8.6	765	33	10	418	14
16	46	70	50	53	22	24	13	834	18	8.5	410	11
17	45	68	50	54	26	21	9.8	870	8.7	8.1	405	24
18	45	67	51	54	31	19	9.0	907	55	8.0	389	16
19	66	65	51	53	28	19	7.5	912	377	7.7	330	100
20	255	62	49	53	28	17	7.8	895	310	7.0	218	111
21	504	60	46	50	27	19	7.3	886	436	6.4	155	70
22	340	59	47	50	28	21	12	857	328	6.1	146	37
23	252	60	82	52	30	21	17	827	387	5.6	162	28
24	202	57	110	56	32	18	14	524	190	6.2	171	20
25	171	57	56	56	33	17	18	297	137	6.7	159	12
26	145	56	57	54	31	17	15	223	103	6.7	151	7.2
27	122	54	67	58	31	18	7.3	160	92	6.7	164	5.4
28	108	55	62	62	29	18	4.8	108	134	6.4	193	26
29	95	53	68	61	29	17	5.7	89	199	6.7	212	38
30	87	53	70	56	---	16	11	79	130	238	209	56
31	82	---	72	55	---	16	---	75	---	549	186	---
TOTAL	3778	5102	1790	1821	1017	765	388.3	14673	3458.5	1493.8	19097	1540.6
MEAN	122	170	57.7	58.7	35.1	24.7	12.9	473	115	48.2	616	51.4
MAX	504	1130	110	77	52	34	19	912	436	549	2640	148
MIN	45	53	46	50	22	16	4.8	16	8.5	5.6	146	5.4
AC-FT	7490	10120	3550	3610	2020	1520	770	29100	6860	2960	37880	3060

CAL YR 1983 TOTAL 64387.0 MEAN 176 MAX 1130 MIN 3.6 AC-FT 127700
WTR YR 1984 TOTAL 54924.2 MEAN 150 MAX 2640 MIN 4.8 AC-FT 108900

BEST COPY AVAILABLE

08396500 PECOS RIVER NEAR ARTESIA, NM
(Surveillance program station)

LOCATION.--Lat 32°50'27", long 104°19'23", in NW¼NW¼ sec.18, T.17 S., R.27 E., Eddy County, Hydrologic Unit 13060007, on left bank 250 ft upstream from bridge on State Highway 83, 4.3 mi east of Artesia, 7.0 mi upstream from Rio Penasco, 17 mi upstream from McMillan Dam, and at mile 503.9.

DRAINAGE AREA.--15,300 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to June 1909, August 1909 to current year. Monthly discharge only for some periods, published in WSP 1312 and 1712. Records for Aug. 22-31, 1934, and October 1936 to April 1937, published in WSP 763 and 828, respectively are not reliable and should not be used. Prior to February 1936, published as "near Dayton."

REVISED RECORDS.--WSP 1312 and 1512: 1913, 1915, 1917-18(M), 1920, 1923, 1931-36. WSP 1712: 1906(M), 1908-11(M), 1919, 1921-23(M), 1929, 1931-32(M), 1935-36(M), 1937, 1939(M), 1941(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,291.92 ft National Geodetic Vertical Datum of 1929. See WSP 1923 or 2123 for history of changes prior to Apr. 5, 1941. Apr. 5, 1941 to Apr. 2, 1981, water-stage recorder at site 250 ft downstream at same datum.

REMARKS.--Records fair. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 154,000 acres, 1959 determination, above station.

AVERAGE DISCHARGE.--48 years (1937-84), 241 ft^3/s, 174,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge probably occurred May 30, 1937, when a discharge of 51,500 ft^3/s was measured by slope-area method at a point 15 mi upstream, gage height, 14.7 ft, site and datum then in use; no flow at times in 1934, 1946-47, 1953-54, 1957, 1964-65.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1893 occurred Oct. 2, 1904, discharge not determined; the peak inflow to Lake McMillan, which includes Rio Penasco and Fourmile Draw, was estimated at 82,000 ft^3/s. The second highest flood occurred July 25, 1905, discharge below Rio Penasco, 50,300 ft^3/s, based on gain in storage and spill from Lake McMillan. The floods in August 1893 and October 1904 damaged McMillan Dam and washed out Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Nov. 4	0900	2080	10.76	Aug. 13	0230	*2220	11.94

Minimum discharge, 4.9 ft^3/s April 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	75	64	78	53	28	23	13	70	130	540	118
2	152	72	65	66	50	30	25	17	59	125	617	96
3	138	232	67	56	45	30	29	19	63	68	646	96
4	164	1450	66	58	43	31	23	21	58	62	683	83
5	109	415	66	61	48	33	19	22	66	54	693	113
6	98	463	66	70	45	37	19	22	59	47	676	105
7	76	260	65	73	44	39	12	271	47	36	681	71
8	63	188	66	76	40	39	12	586	37	28	730	71
9	66	158	65	76	38	35	14	648	29	25	1090	61
10	73	128	66	70	39	35	16	685	41	46	1420	55
11	67	111	64	65	38	35	19	695	37	28	1700	49
12	58	98	63	61	37	34	18	718	25	29	2060	46
13	54	96	61	59	38	33	18	757	14	31	1560	41
14	54	91	60	57	36	26	15	811	13	28	595	32
15	50	85	59	55	31	21	10	812	13	17	519	27
16	49	81	59	56	32	17	9.9	853	20	11	500	21
17	52	76	58	56	23	16	14	943	19	12	471	21
18	51	76	58	57	28	16	11	971	16	12	437	32
19	72	76	56	56	32	17	10	984	217	9.2	395	35
20	196	72	56	57	29	17	9.0	1020	329	7.9	286	107
21	469	71	58	57	29	20	8.9	972	350	6.9	202	82
22	373	68	54	54	28	29	8.8	927	369	6.7	181	58
23	271	69	91	53	30	26	12	926	357	6.5	198	42
24	184	69	132	55	31	16	17	706	197	7.8	200	36
25	168	68	68	57	33	14	14	303	149	10	168	28
26	152	67	69	58	25	19	18	211	116	11	154	20
27	136	65	80	56	30	25	17	157	105	8.2	188	16
28	121	64	74	60	27	20	10	134	105	7.8	237	45
29	114	66	77	62	29	20	6.6	115	160	7.8	238	41
30	102	64	76	59	---	17	7.0	99	145	75	190	47
31	80	---	82	56	---	19	---	86	---	439	160	---
TOTAL	3887	4974	2111	1890	1031	794	445.2	15504	3285	1392.8	18415	1695
MEAN	125	166	68.1	61.0	35.6	25.6	14.8	500	110	44.9	594	56.5
MAX	469	1450	132	78	53	39	29	1020	369	439	2060	118
MIN	49	64	54	53	23	14	6.6	13	13	6.5	154	16
AC-FT	7710	9870	4190	3750	2040	1570	883	30750	6520	2760	36530	3360

CAL YR 1983 TOTAL 66247.9 MEAN 182 MAX 1450 MIN 4.7 AC-FT 131400
WTR YR 1984 TOTAL 55424.0 MEAN 151 MAX 2060 MIN 6.5 AC-FT 109900

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: April 1949 to current year.
SUSPENDED-SEDIMENT DISCHARGES: January 1949 to current year.

REMARKS.--Continuous water-temperature and specific conductance recorder since July 1981.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,800 microsiemens June 24, 1977; minimum daily, 111 microsiemens Aug. 31, 1982.
WATER TEMPERATURES: Maximum daily, 36.0°C July 27, 1966, July 25, 1969; minimum daily, 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 21,300 mg/L Aug. 1, 1962; minimum daily mean, 0 mg/L on several days in December, 1982, and Feb. 8, 1984.
SEDIMENT LOADS: Maximum daily, 183,000 tons Sept. 26, 1955; minimum daily, 0 tons on many days during 1953, 1954, 1957, 1964, 1982, Feb. 8, 1984.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 16,800 microsiemens Apr. 23; minimum daily, 618 microsiemens Oct. 7.
WATER TEMPERATURES: Maximum daily, 33.0°C July 5, 10; minimum daily, 0.0°C Dec. 22, 25, 29, 30.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 13,000 mg/L June 23; minimum daily mean, 0 mg/L Feb. 8.
SEDIMENT LOADS: Maximum daily, 13,300 tons June 23; minimum daily, 0 tons Feb. 8.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV												
01...	1615	75	5100	5080	8.3	7.5	22.0	20.5	10.2	35	1700	1500
JAN												
02...	1500	64	11800	--	8.2	--	15.5	5.5	13.2	33	--	--
FEB												
29...	1230	31	11400	11300	8.2	7.9	14.0	10.5	12.6	110	2800	2700
APR												
30...	1030	5.4	12200	12600	8.1	7.2	20.0	16.0	13.0	80	2900	2700
30...	1500	5.0	5000	5140	8.0	7.8	25.5	20.0	9.8	--	1900	1700
JUL												
02...	1130	82	7200	7400	8.3	7.3	28.5	30.0	7.4	53	1700	1700
SEP												
03...	1100	97	5200	--	8.2	--	22.0	24.0	9.5	50	--	--

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
NOV											
01...	460	130	600	7	6.7	180	.000	--	1300	1100	.60
JAN											
02...	--	--	--	--	--	220	18	210	--	--	--
FEB											
29...	650	290	1600	14	13	190	.000	160	2200	3200	.80
APR											
30...	670	300	1800	15	18	170	16	--	2600	3400	.90
30...	520	140	450	5	5.0	--	--	--	1700	870	1.0
JUL											
02...	450	150	1000	11	11	62	11	--	1600	1800	.70
SEP											
03...	--	--	--	--	--	--	--	--	--	1200	--

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV											
01...	14	3700	.70	.67	.280	--	1.2	2.2	.200	.020	4.5
JAN											
02...	--	--	1.2	1.1	1.20	--	.50	2.9	.190	.120	4.5
FEB											
29...	7.5	8100	5.3	.14	.140	.100	.76	6.2	.040	.030	3.7
APR											
30...	10	8900	.20	<.10	1.40	--	3.1	4.7	2.00	.320	14
30...	16	3800	--	--	--	--	--	--	--	--	--
JUL											
02...	3.1	5100	<.10	<.10	<.010	--	--	--	.170	.020	8.6
SEP											
03...	--	--	.10	.13	.250	--	1.5	1.8	.160	<.010	5.9

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
NOV										
01...	1615	1	1	330	<1	1	40	10	6	1
FEB										
29...	1230	--	--	620	--	--	--	--	--	--
APR										
30...	1030	--	--	860	--	--	--	--	--	--
30...	1500	--	--	270	--	--	--	--	--	--
JUL										
02...	1130	<1	1	490	2	<1	20	10	11	4

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
01...	80	9	<1	.1	<.1	2	2	60	30
FEB									
29...	90	--	--	--	--	--	--	--	--
APR									
30...	100	--	--	--	--	--	--	--	--
30...	70	--	--	--	--	--	--	--	--
JUL									
02...	50	5	8	.1	<.1	4	3	10	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)
NOV							
02...	1045	<2.0	3.8	130	1	<1	1

DATE	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
NOV							
02...	<10	1	550	<10	220	<.01	4

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
01...	1615	<150	8.4	<58	7.0	<48	6.0	.12	7.3

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
FEB										
29...	1230	--	--	--	--	--	--	--	--	--
SEP										
03...	1100	<.1	<.010	<.1	<.010	<.010	<.010	<.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
FEB									
29...	--	--	--	--	--	--	--	--	--
SEP									
03...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
FEB									
29...	--	--	--	<.01	<.01	<.01	--	--	--
SEP									
03...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
01...	1615	930	1200
JAN			
02...	1500	--	--
FEB			
29...	1230	0	260
APR			
30...	1030	18	360
JUL			
02...	1130	15	240
SEP			
03...	1100	79	210

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
03...	1330	130	22.5	1820	639	51	74	94
22...	0811	373	13.5	4720	4750	47	64	89
NOV								
01...	1615	75	20.5	188	38	--	--	--
04...	0743	2060	15.0	2490	13800	43	62	88
04...	1450	1630	15.5	2890	12700	40	54	81
JAN								
02...	1500	64	5.5	58	10	--	--	--
FEB								
02...	1515	49	11.5	26	3.4	--	--	--
29...	1230	31	10.5	21	1.8	--	--	--
APR								
02...	1415	25	19.0	34	2.3	--	--	--
30...	1030	5.4	16.0	23	.34	--	--	--
MAY								
09...	1115	663	18.0	2710	4850	41	54	85
10...	1345	708	20.5	2420	4630	35	47	75
19...	1727	983	23.0	2640	7010	22	29	44
22...	1619	928	25.0	2290	5740	20	26	43
JUN								
22...	1717	415	27.0	6280	7040	63	79	89
23...	0458	311	24.0	5520	4640	54	66	81
25...	0904	179	25.5	6530	3160	71	84	99
29...	1701	329	30.0	2040	1810	47	61	90
JUL								
02...	1130	82	30.0	68	15	--	--	--
29...	2028	179	27.0	1990	962	--	--	--
31...	0900	480	25.5	10700	13900	--	--	--
31...	1230	480	27.0	6610	8570	47	59	87
31...	1932	494	27.0	5500	7340	--	--	--
AUG								
09...	1500	1300	23.0	3150	11100	--	--	--
12...	0802	2690	21.0	1780	12900	--	--	--
13...	1657	1080	26.0	3160	9210	37	50	72
SEP								
03...	1100	97	24.0	93	24	--	--	--

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT							
03...	--	--	--	97	99	100	--
22...	--	--	--	97	99	100	--
NOV							
01...	--	--	--	83	--	--	--
04...	--	--	--	99	100	--	--
04...	92	98	100	--	--	--	--
JAN							
02...	--	--	--	48	67	97	100
FEB							
02...	--	--	--	89	--	--	--
29...	--	--	--	53	--	--	--
APR							
02...	--	--	--	81	91	97	100
30...	--	--	--	90	95	98	100
MAY							
09...	--	--	--	100	--	--	--
10...	--	--	--	96	100	--	--
19...	83	99	100	--	--	--	--
22...	92	100	--	--	--	--	--
JUN							
22...	--	--	--	99	100	--	--
23...	96	100	--	--	--	--	--
25...	--	--	--	100	--	--	--
29...	--	--	--	99	100	--	--
JUL							
02...	--	--	--	77	--	--	--
29...	--	--	--	95	--	--	--
31...	--	--	--	55	--	--	--
31...	96	99	100	--	--	--	--
31...	--	--	--	97	--	--	--
AUG							
09...	--	--	--	92	--	--	--
12...	--	--	--	100	--	--	--
13...	--	--	--	95	100	--	--
SEP							
03...	--	--	--	86	--	--	--

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			8100	9450	8770	11800	12100	14600	3960	6620	2620	3430
2		5560	8160	9530	8960	11500	11600	16300	4350	7440	2350	3200
3		5450	8180	9270	8870	11400	11600	14500	3330	7490	2250	3390
4		751	8370	9200	8940	11600	11000	13100	4960	7900	2150	5870
5		1790	8390	9080	9550	11600	11300	13100	5140	8230	1750	6420
6		1870	8190	9950	9680	11300	11500	13300	5390	8480	1260	4940
7		2300	8330	8970	9860	11200	11700	9300	5760	8930	1180	5690
8		2590	8270	7640	9890	10900	10900	4060	5430	9030	1140	6620
9		3940	8160	7090	10100	10800	14000	3510	5720	9130	1380	7610
10		4040	8220	7070	10100	10900	16400	3310	6500	9350	1430	7810
11		4460	8120	7140	10300	11100	13200	3200	6820	8250	1630	8160
12		5200	8310	7570	10400	11800	12100	3190	6690	7440	827	8760
13		5460	8410	7910	10300	12100	11800	3220	6390	7320	1480	8820
14		6120	8800	8140	10400	11800	11900	3190	7510	6720	1840	9090
15		6310	8710	8610	10600	11700	11700	3080	10100	7000	2050	9000
16		6640	9030	8640	11100	11800	12500	3010	11100	8110	2280	10000
17		6850	8990	8790	11000	12800	14200	2590	8610	8590	2020	10400
18		6900	8900	8900	12300	14300	14700	2100	6810	10000	2150	10400
19		7020	8940	9010	12000	14300	16100	1960	5690	13200	2340	12100
20		7040	8950	8800	11200	14100	15500	1970	3260	11600	2520	10300
21		7600	9180	8990	11600	13300	13700	1630	2430	11600	2940	7700
22		7560	9200	9120	11600	13600	13800	1530	2640	10000	3540	5190
23		7640	9480	9030	11600	11500	16800	1480	2380	9940	3710	5760
24		7650	9430	9290	11400	11400	16700	1840	1830	12600	[illegible]	7570
25		7700	9140	9730	11400	13400	13500	1790	2150	15600	[illegible]	8120
26		7570	10100	9500	11300	14100	14000	1940	2530	14600	4180	8310
27		8030	11100	9220	12300	13500	13400	2290	3310	14200	3980	9480
28		7960	9590	9330	11600	12200	12400	2520	3820	---	3030	3610
29		8150	9560	9030	11400	11900	12100	2710	3890	11800	2910	9920
30		8090	9540	8970	---	12000	12100	2980	4470	3200	2830	9220
31		---	9310	8730	---	12100	---	3440	---	2900	3120	---
MEAN			8880	8760	10600	12200	13100	5050	5100	9240	2370	7560

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1			1970			4810						
2			2150			---						
3			2340			---						
4			2410			---						
5			2430			---						
6			2740			---						
7			2490			---						
8			1110			---						
9			1500			---						
10			2640			---						
11			2610			---						
12			780			---						
13			693			---						
14			677			---						
15			640			---						
16			643			---						
17			618			---						
18			---			---						
19			4170			---						
20			1600			---						
21			3000			---						
22			2570			---						
23			2560			---						
24			2690			---						
25			2810			---						
26			2990			---						
27			3120			---						
28			3340			---						
29			3580			---						
30			3830			---						
31			4310									
MONTH			2230			4810						

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			6.0	1.5	6.5	12.5	13.0	17.0	22.0	32.0	24.0	24.5
2		19.5	8.5	3.0	12.0	16.0	15.0	25.0	25.0	30.0	25.0	28.5
3		18.0	9.0	10.0	12.0	17.0	20.0	19.0	20.0	25.0	27.0	29.0
4		15.0	10.5	8.5	7.5	10.0	20.0	19.0	27.0	31.0	27.0	23.0
5		17.0	9.5	10.0	6.0	16.5	12.5	27.0	26.0	33.0	27.0	20.5
6		17.5	10.0	7.0	8.0	10.0	21.5	25.0	28.0	31.5	26.0	25.0
7		18.0	7.0	6.0	12.5	6.0	15.5	24.0	21.0	31.0	27.0	20.0
8		16.0	6.5	7.0	8.0	15.0	17.0	20.0	24.0	30.0	25.0	25.0
9		15.0	7.0	10.0	13.0	8.5	17.5	18.0	29.0	31.0	23.0	25.5
10		15.5	12.0	7.5	14.5	10.0	14.0	20.5	24.0	33.0	22.0	28.0
11		12.0	8.0	10.0	9.0	10.0	17.0	23.0	24.0	29.0	22.0	22.0
12		13.0	12.0	5.0	7.0	9.5	23.0	23.0	27.0	26.0	21.0	25.0
13		18.0	13.0	5.0	12.0	15.0	20.0	24.0	25.0	31.0	26.0	23.0
14		16.0	10.0	8.5	13.5	16.0	19.5	23.0	28.5	32.0	24.0	28.0
15		12.0	7.0	4.0	15.0	17.5	14.0	22.0	24.0	27.0	25.0	24.0
16		12.0	10.0	6.5	13.0	17.0	23.0	21.0	30.0	30.0	24.0	22.0
17		12.5	8.5	3.0	14.0	15.0	26.5	20.0	23.0	27.0	24.0	19.0
18		15.5	4.0	1.0	11.5	15.0	25.0	19.0	24.0	25.5	24.0	19.0
19		13.0	2.0	3.0	6.5	14.5	18.5	23.0	22.5	27.0	25.0	27.5
20		14.0	1.5	2.5	11.0	18.0	24.0	24.0	23.0	26.0	26.0	28.0
21		14.0	2.0	3.0	13.0	20.5	15.0	25.0	25.0	32.0	25.0	21.5
22		12.0	.0	5.0	13.0	15.0	23.0	25.0	27.0	27.0	27.0	19.0
23		9.0	1.0	9.0	8.0	11.0	15.0	25.0	24.0	32.5	26.0	19.0
24		11.5	4.0	4.5	11.0	11.5	25.0	25.0	28.0	22.0	25.0	27.0
25		8.0	.0	3.0	15.0	11.5	17.5	24.0	25.5	25.0	28.5	23.0
26		8.5	.5	10.0	8.5	14.0	21.0	27.0	26.5	27.0	28.0	27.5
27		9.0	3.5	6.0	13.0	12.0	13.5	28.0	26.0	31.5	30.0	22.5
28		6.0	1.5	9.0	10.0	12.0	16.5	22.0	25.0	---	25.0	16.0
29		10.0	.0	10.0	5.0	17.0	14.0	21.0	30.0	27.0	27.0	15.0
30		6.0	.0	9.5	---	15.0	23.0	19.5	31.0	25.5	25.0	12.5
31		---	3.0	10.0	---	15.0	---	23.0	---	27.0	29.0	---
MEAN			5.5	6.5	10.5	13.5	18.5	22.5	25.5	29.0	25.5	23.0

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1			23.0			17.5						
2			23.0			---						
3			22.0			---						
4			21.5			---						
5			22.0			---						
6			22.5			---						
7			22.5			---						
8			21.5			---						
9			21.5			---						
10			20.5			---						
11			20.5			---						
12			19.0			---						
13			17.5			---						
14			18.0			---						
15			18.5			---						
16			18.5			---						
17			18.0			---						
18			18.5			---						
19			16.5			---						
20			13.0			---						
21			13.0			---						
22			13.5			---						
23			15.0			---						
24			15.5			---						
25			13.5			---						
26			13.5			---						
27			14.5			---						
28			15.5			---						
29			16.5			---						
30			16.5			---						
31			17.5									
MONTH			18.0			17.5						

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	40	8.1	180	36	8	1.4	9	1.9	2	.29	3	.23
2	389	183	94	18	10	1.8	39	6.7	14	1.9	4	.32
3	1710	637	213	302	9	1.6	13	2.0	2	.24	4	.32
4	3040	1350	2620	10700	17	3.0	9	1.4	5	.57	3	.25
5	1650	486	4380	5320	12	2.1	10	1.6	2	.25	5	.45
6	2010	532	8710	11600	8	1.4	12	2.3	1	.12	4	.40
7	1510	310	3800	2670	8	1.4	14	2.8	1	.11	3	.32
8	1090	185	1300	660	7	1.2	15	3.1	0	.00	2	.21
9	508	91	483	206	8	1.4	20	4.1	2	.21	3	.28
10	334	66	393	136	10	1.8	11	2.1	5	.53	6	.57
11	103	19	232	70	6	1.0	11	1.9	2	.21	5	.47
12	74	12	175	46	7	1.2	7	1.2	5	.50	8	.73
13	83	12	185	48	6	.99	6	.96	3	.31	7	.62
14	98	14	165	41	12	1.9	7	1.1	4	.39	7	.49
15	48	6.5	117	27	7	1.1	5	.74	3	.25	13	.74
16	46	6.1	63	14	14	2.2	8	1.2	2	.17	8	.37
17	58	8.1	65	13	7	1.1	7	1.1	11	.68	16	.69
18	34	4.7	65	13	6	.94	8	1.2	8	.60	31	1.3
19	55	11	26	5.3	3	.45	6	.91	5	.43	21	.96
20	1860	1330	49	9.5	8	1.2	4	.62	4	.31	28	1.3
21	5300	6710	35	6.7	7	1.1	8	1.2	4	.31	30	1.6
22	4790	4820	11	2.0	8	1.2	6	.84	4	.30	53	4.1
23	4660	3410	29	5.4	9	2.2	6	.86	3	.24	13	.91
24	3450	1710	7	1.3	12	4.3	4	.57	6	.50	5	.22
25	3340	1520	10	1.8	47	8.6	11	1.7	5	.45	12	.45
26	1610	661	10	1.8	6	1.1	8	1.2	6	.41	9	.46
27	1660	610	7	1.2	8	1.7	10	1.5	4	.32	7	.47
28	1010	330	7	1.2	22	4.4	10	1.6	3	.22	9	.49
29	504	155	10	1.8	12	2.5	7	1.2	12	.94	5	.27
30	290	80	12	2.1	34	7.0	8	1.3	---	---	6	.28
31	180	39	---	---	23	5.1	8	1.2	---	---	11	.56
TOTAL	---	25316.5	---	31960.1	---	68.38	---	52.10	---	11.76	---	20.83

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6	.37	19	.7	38	7.2	79	28	4170	6080	710	226
2	20	1.4	41	1.9	35	5.6	68	23	3500	5830	539	140
3	12	.94	20	1.0	72	12	26	4.8	3700	6450	248	64
4	9	.56	24	1.4	41	6.4	38	6.4	3700	6820	30	6.7
5	3	.15	33	2.0	80	14	42	6.1	3500	6550	31	9.5
6	8	.41	24	1.4	36	5.7	55	7.0	2500	4560	45	13
7	4	.13	1240	1520	25	3.2	55	5.3	1710	3140	22	4.2
8	3	.10	3390	5360	36	3.6	75	5.7	2460	4850	33	6.3
9	7	.26	2700	4720	31	2.4	75	3.6	3460	9530	43	7.1
10	10	.43	2420	4480	109	12	80	9.9	2490	9550	28	4.2
11	14	.72	2830	5310	142	14	55	4.2	2150	9870	20	2.6
12	14	.68	2380	4610	36	2.4	77	6.0	1990	11100	32	4.0
13	17	.83	3330	6810	48	1.8	77	6.4	3120	12400	18	2.0
14	14	.57	2040	4470	38	1.3	83	6.3	2360	3780	40	3.5
15	13	.35	2300	5040	56	2.0	47	2.2	1370	1920	22	1.6
16	17	.45	2370	5460	58	3.1	56	1.7	1590	2150	28	1.6
17	20	.76	2370	6030	9	.46	38	1.2	1210	1540	19	1.1
18	16	.48	2890	7580	21	.91	42	1.4	1160	1370	20	1.7
19	22	.59	2750	7310	1140	884	42	1.0	738	787	36	3.4
20	11	.27	4350	12000	3880	3450	39	.83	821	634	104	30
21	16	.38	3130	8210	8300	10100	41	.76	535	292	65	14
22	12	.29	2460	6160	9710	11100	116	2.1	480	235	172	27
23	14	.45	2600	6500	13000	13300	127	2.2	461	246	136	15
24	36	1.7	1470	2800	11700	6220	35	.74	657	355	75	7.3
25	14	.53	1000	818	6490	2610	26	.70	467	212	45	3.4
26	22	1.1	844	481	3580	1120	14	.42	391	163	34	1.8
27	14	.64	753	319	1660	471	560	13	567	288	34	1.5
28	21	.57	244	88	947	268	1000	21	1440	921	139	17
29	25	.45	172	51	2040	881	1720	36	1380	887	42	4.6
30	22	.42	115	31	920	360	3010	618	1250	641	39	4.9
31	---	---	65	15	---	---	7680	9100	820	354	---	---
TOTAL	---	16.98	---	106181.4	---	50862.07	---	9925.95	---	113505	---	629.0

TOTAL LOAD FOR YEAR: 338550.07 TONS.

08398500 RIO PENASCO AT DAYTON, NM

LOCATION.--Lat 32°44'36", long 104°24'49", in NE¼SE¼SE¼ sec.18, T.18 S., R.26 E., Eddy County, Hydrologic Unit 13060010, on left bank 1.2 mi upstream from U.S. Highway 285, 1.9 mi northwest of old Dayton railway station, 5.6 mi upstream from mouth, and 7.0 mi south of Artesia. Mouth at Pecos River mile 496.4.

DRAINAGE AREA.--1,060 mi^2, approximately.

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1953, published as "near Dayton."

REVISED RECORDS.--WSP 1242: 1951(M). WSP 1512: 1956. WSP 1923: 1955.

GAGE.--Water-stage recorder and rock and concrete control. Datum of gage is 3,385.19 ft National Geodetic Vertical Datum of 1929. Prior to May 9, 1968, at site 2.4 mi downstream, at datum 44.30 ft lower. May 9, 1968, to June 12, 1975, at present site at datum 1.98 ft higher.

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 3,000 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years, 5.50 ft^3/s, 3,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft^3/s Aug. 23, 1966, gage height, 16.4 ft, from floodmarks, present site and datum, from rating curve extended above 6,000 ft^3/s, on basis of slope-area measurements at gage heights 6.82 ft and 7.90 ft at previous site and datum; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft from floodmark, previous site and datum, discharge not determined. Peak discharge at discontinued station "near Dunken" (station 08397600), about 60 mi upstream, was 70,000 ft^3/s, determined in 1956 from rating curve extended above a slope-area measurement of 36,300 ft^3/s for peak of Oct. 6 or 7, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 9	0600	1410	5.20	Aug. 10	2400	8220	9.52
Nov. 3	0730	*12000	10.80	Aug. 11	1500	6670	8.85

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	2140	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	2.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.90	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.60	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	110	.04	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.27	.00	.00	.00	.00	.00	.00	.00	.00	.00	248	.00
11	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	5230	.00
12	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	564	.00
13	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00
14	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.77	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00
19	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00
20	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00
21	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	110.40	2184.24	.00	.00	.00	.00	.00	.00	.00	.00	6073.17	.00
MEAN	3.56	72.8	.000	.000	.000	.000	.000	.000	.000	.000	196	.000
MAX	110	2140	.00	.00	.00	.00	.00	.00	.00	.00	5230	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	219	4330	.00	.00	.00	.00	.00	.00	.00	.00	12050	.00

CAL YR 1983 TOTAL 2294.64 MEAN 6.29 MAX 2140 MIN .00 AC-FT 4550
WTR YR 1984 TOTAL 8367.81 MEAN 22.9 MAX 5230 MIN .00 AC-FT 16600

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, NM

LOCATION.--Lat 32°41'22", long 104°17'53", in NW¼SE¼ sec.5, T.19 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 3.0 mi upstream from high-water line of Lake McMillan, 6.0 mi northeast of Lakewood, 7.0 mi northeast of gates in McMillan Dam, 12 mi southeast of Artesia, and at mile 492.1.

PERIOD OF RECORD.--May 1950 to current year. Prior to October 1954, published as Kaiser Lake-McMillan Channel near Lakewood.

GAGE.--Water-stage recorder. Datum of gage is 3,268.53 ft National Geodetic Vertical Survey of 1929 (Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3.0 mi downstream at datum 7.83 ft lower. Mar. 23, 1955, to Sept. 30, 1963, at present site at datum 2.00 ft higher.

REMARKS.--Records good. Flow regulated by Santa Rosa Lake (station 08382810) since April 1980, by Lake Sumner (station 08384000) since August 1937, and by Two Rivers Reservoir (station 08390600) since July 1963. Diversions and ground-water withdrawals for irrigation of about 170,000 acres, 1959 determination, above station. Above about 1,500 ft^3/s flow will begin bypassing station and, depending on the magnitude and duration of flow, may reach Lake McMillan (station 08400500). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years, 149 ft^3/s, 108,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,920 ft^3/s July 12, 1960; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,500 ft^3/s Aug. 13; no flow July 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	73	54	71	55	27	19	6.3	63	113	534	115
2	105	69	54	60	51	26	19	10	56	123	626	99
3	135	88	56	53	46	28	25	15	54	64	660	99
4	153	1210	55	54	42	28	22	16	48	55	690	90
5	119	325	56	55	44	28	18	15	49	49	729	98
6	98	468	55	61	42	31	18	17	50	42	767	112
7	83	258	54	67	41	33	13	133	41	36	751	81
8	64	214	54	69	38	34	8.4	533	29	33	783	69
9	57	179	55	73	37	34	10	611	20	22	1200	66
10	75	146	55	67	37	29	13	651	20	33	1300	59
11	64	125	55	62	36	32	16	660	32	32	1360	54
12	57	109	54	60	36	31	18	710	17	20	1420	54
13	53	103	51	57	36	31	17	798	12	27	1500	50
14	49	95	50	56	36	27	15	822	8.0	27	1060	39
15	48	87	49	54	29	19	13	869	8.5	17	498	32
16	44	81	49	53	32	16	7.6	956	17	9.3	488	28
17	45	75	49	54	24	14	11	1010	16	4.1	482	23
18	46	72	49	54	21	14	11	1040	8.4	7.8	427	31
19	51	70	48	54	28	13	8.6	1030	96	5.6	374	30
20	135	68	48	55	28	14	7.4	1010	329	1.7	269	90
21	429	65	49	54	25	13	6.0	1020	260	.34	167	93
22	334	63	45	53	27	23	7.5	964	473	.00	131	66
23	299	62	81	50	25	24	6.9	970	414	.00	148	47
24	210	61	132	52	29	17	13	834	312	.00	139	39
25	171	61	59	54	30	11	14	397	145	1.3	135	30
26	151	59	62	53	25	14	11	230	109	4.8	109	23
27	126	57	77	53	25	18	15	162	85	3.5	141	16
28	112	56	66	54	28	20	12	119	93	2.6	183	20
29	98	56	73	57	23	17	4.7	107	156	.88	229	46
30	86	55	73	59	---	15	3.6	99	141	3.6	182	42
31	79	---	78	54	---	16	---	81	---	308	151	---
TOTAL	3628	4510	1845	1782	976	697	383.7	15895.3	3161.9	1046.52	17633	1741
MEAN	117	150	59.5	57.5	33.7	22.5	12.8	513	105	33.8	569	58.0
MAX	429	1210	132	73	55	34	25	1040	473	308	1500	115
MIN	44	55	45	50	21	11	3.6	6.3	8.0	.00	109	16
AC-FT	7200	8950	3660	3530	1940	1380	761	31530	6270	2080	34980	3450

CAL YR 1983 TOTAL 60877.67 MEAN 167 MAX 1210 MIN .00 AC-FT 120800
WTR YR 1984 TOTAL 53299.42 MEAN 146 MAX 1500 MIN .00 AC-FT 105700

08400000 FOURMILE DRAW NEAR LAKEWOOD, NM

LOCATION.--Lat 32°40'20", long 104°22'07", in SW¼NW¼SE¼ sec.10, T.19 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in left side of channel 360 ft downstream from ford on Lakewood-Dayton road, 1.9 mi downstream from U.S. Highway 285, 2.8 mi north of Lakewood, 3.8 mi upstream from mouth, and 11.5 mi south of Artesia. Mouth at Pecos River mile 490.6.

DRAINAGE AREA.--265 mi^2, approximately.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WRD 1968: 1967.

GAGE.--Water-stage recorder. Datum of gage is 3,299.14 ft National Geodetic Vertical Datum of 1929. Oct. 1, 1951, to June 19, 1962, at site 1.8 mi upstream at datum 30.61 ft higher. June 19, 1962, to Oct. 12, 1966, at site 410 ft upstream at datum 6.08 ft higher.

REMARKS.--Records good. No surface diversions above station.

AVERAGE DISCHARGE.--33 years, 3.81 ft^3/s, 2,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,300 ft^3/s Aug. 23, 1966, gage height, 19.9 ft, from floodmarks present datum, from rating curve extended above 5,000 ft^3/s on basis of slope-area measurement of peak flow; no flow most of time.

The flood of Aug. 23, 1966, (information from local resident) is believed to be the greatest since at least 1920.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s, from rating curve extended above 4,400 ft^3/s on basis of slope-area measurement of peak flow at recorded gage height of 14.62 ft, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 10	1900	979	4.42	Aug. 11	2100	*9060	a14.62
Aug. 11	0500	8200	14.15				

a 16.20 ft from floodmarks

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.41	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	135	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4770	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	874	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.83	5782.50	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.027	187	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.42	4770	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.6	11470	.00

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT 0
WTR YR 1984 TOTAL 5783.33 MEAN 15.8 MAX 4770 MIN .00 AC-FT 11470

08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'42", long 104°20'49", in NE¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, near outlet gates of McMillan Dam on Pecos River, 3.4 mi southeast of Lakewood, and at mile 484.3.

DRAINAGE AREA.--16,990 mi^2, approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (month end gage heights and contents), October 1965 to current year. Month end gage heights January 1918 to December 1938 in files of Pecos River Commission.

GAGE.--Nonrecording gage. Datum of gage is 3,241.6 ft Bureau of Reclamation datum.

REMARKS.--Lake is formed by McMillan Dam, an earthfill structure, completed and storage began in 1893. The structure was damaged by floods of October 1893 and Oct. 2, 1904. Capacity, 27,300 acre-ft between gage heights 0.0 ft (sill of outlet gate) and 24.9 ft, crest of spillway No. 2. Flashboards in spillway No. 2 may be used to increase this capacity. Maximum capacity without spill, 33,620 acre-ft at gage height 26.1 ft crest of spillway No. 1. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Gage heights may be affected by variable drawdown due to flow through gates. Water is used for irrigation by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table (based on August 1964 survey) furnished by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents observed, 68,500 acre-ft Sept. 26, 1941, gage height, 29.95 ft; no storage for periods in 1944-54, 1957, 1964, 1965, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 36,480 acre-ft Aug. 13, gage height, 26.60 ft; minimum, 156 acre-ft July 30, gage height, 15.00 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13940	18680	23900	24140	25100	23440	19280	3120	20960	16560	1370	33340
2	14110	18880	24140	24140	25100	23440	18680	3020	20320	16560	2230	33340
3	14280	19080	24140	24140	25100	23440	18080	2750	19690	16560	3120	33340
4	14450	19480	24140	24140	25100	23440	17500	2400	19690	16380	3810	33340
5	14790	22060	23900	24140	25100	23440	17310	1980	19480	16200	4440	33060
6	14790	23440	24140	24140	25100	23440	16380	1590	19480	16020	5080	33060
7	14960	23670	24140	24380	24860	23440	15840	1160	19280	15840	5630	32790
8	14960	23900	24140	24380	24860	23210	15300	1300	19080	15480	6200	32520
9	14960	23900	24140	24620	24860	23210	14790	2140	18680	14960	6880	31980
10	14960	24140	24140	24860	24860	23210	14280	2750	18280	14450	8980	31440
11	14960	24140	24140	24860	24860	23210	13620	3910	17880	13780	17500	30640
12	15130	24140	24140	24860	24860	23210	12820	4860	17310	12980	26550	30120
13	15130	24140	24140	24860	24620	23210	12060	5740	16560	12060	36480	29340
14	15130	24140	24140	24860	24620	23210	11310	6540	15840	11160	36190	28820
15	15130	24140	24140	24860	24620	23210	10740	7360	14960	10740	35030	28300
16	15130	24140	24140	24860	24620	22980	10180	8200	14450	10320	33060	27550
17	15130	24140	24140	24860	24380	22980	9630	9630	13780	9760	32790	26800
18	15130	24140	24140	24860	24380	22980	8980	10880	13460	8980	33060	26300
19	15130	24140	24140	24860	24380	22750	8330	12820	13300	8200	33340	25820
20	15660	24140	24140	24860	24620	22520	7600	14450	13620	7360	33340	24860
21	15840	24140	24140	24860	24140	22520	6420	16200	14110	6770	33060	24380
22	17120	24140	24140	24860	24140	22290	5190	17880	14790	5960	32790	23900
23	17880	24140	24140	24860	23900	22290	4020	19690	15480	5300	32790	22980
24	18480	24140	24140	24860	23900	22290	3610	20960	16020	4540	33060	22520
25	19080	24140	24140	24860	23900	22060	3410	22060	16380	3910	33060	21620
26	18680	24140	24140	24860	23900	22060	3310	22520	16740	3310	33060	21400
27	18680	24140	24140	25100	23900	21620	3220	22290	16560	2660	33060	20960
28	18680	24140	24140	25100	23670	21400	3220	22290	16560	2060	33060	20740
29	18480	24140	24140	25100	23440	21180	3220	21840	16560	912	33340	20530
30	18480	23900	24140	25100	---	20740	3220	21620	16560	156	33340	20530
31	18680	---	24140	25100	---	20110	---	21400	---	189	33340	---
MAX	19080	24140	24140	25100	25100	23440	19280	22520	20960	16560	36480	33340
MIN	13940	18680	23900	24140	23440	20110	3220	1160	13300	156	1370	20530
(†)	+4740	+5220	+240	+960	-1660	-3330	-16890	+18180	-4840	-16371	+33151	-12810

CAL YR 1983 MAX 24140 MIN 2320 (†) +4030
WTR YR 1984 MAX 36480 MIN 156 (†) +6590

(†) CHANGE IN CONTENTS IN ACRE-FEET.

08400500 LAKE MCMILLAN NEAR LAKEWOOD,NM -- Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.70	23.00	24.20	24.25	24.45	24.10	23.15	17.40	23.55	22.45	16.35	26.05
2	21.75	23.05	24.25	24.25	24.45	24.10	23.00	17.35	23.40	22.45	16.90	26.05
3	21.80	23.10	24.25	24.25	24.45	24.10	22.85	17.20	23.25	22.45	17.40	26.05
4	21.85	23.20	24.25	24.25	24.45	24.10	22.70	17.00	23.25	22.40	17.75	26.05
5	21.95	23.80	24.20	24.25	24.45	24.10	22.65	16.75	23.20	22.35	18.05	26.00
6	21.95	24.10	24.25	24.25	24.45	24.10	22.40	16.50	23.20	22.30	18.35	26.00
7	22.00	24.15	24.25	24.30	24.40	24.10	22.25	16.20	23.15	22.25	18.60	25.95
8	22.00	24.20	24.25	24.30	24.40	24.05	22.10	16.30	23.10	22.15	18.85	25.90
9	22.00	24.20	24.25	24.35	24.40	24.05	21.95	16.85	23.00	22.00	19.15	25.80
10	22.00	24.25	24.25	24.40	24.40	24.05	21.80	17.20	22.90	21.85	20.00	25.70
11	22.00	24.25	24.25	24.40	24.40	24.05	21.60	17.80	22.80	21.65	22.70	25.55
12	22.05	24.25	24.25	24.40	24.40	24.05	21.35	18.25	22.65	21.40	24.75	25.45
13	22.05	24.25	24.25	24.40	24.35	24.05	21.10	18.65	22.45	21.10	26.60	25.30
14	22.05	24.25	24.25	24.40	24.35	24.05	20.85	19.00	22.25	20.80	26.55	25.20
15	22.05	24.25	24.25	24.40	24.35	24.05	20.65	19.35	22.00	20.65	26.35	25.10
16	22.05	24.25	24.25	24.40	24.35	24.00	20.45	19.70	21.85	20.50	26.00	24.95
17	22.05	24.25	24.25	24.40	24.30	24.00	20.25	20.25	21.65	20.30	25.95	24.80
18	22.05	24.25	24.25	24.40	24.30	24.00	20.00	20.70	21.55	20.00	26.00	24.70
19	22.05	24.25	24.25	24.40	24.30	23.95	19.75	21.35	21.50	19.70	26.05	24.60
20	22.20	24.25	24.25	24.40	24.35	23.90	19.45	21.85	21.60	19.35	26.05	24.40
21	22.25	24.25	24.25	24.40	24.25	23.90	18.95	22.35	21.75	19.10	26.00	24.30
22	22.60	24.25	24.25	24.40	24.25	23.85	18.40	22.80	21.95	18.75	25.95	24.20
23	22.80	24.25	24.25	24.40	24.20	23.85	17.85	23.25	22.15	18.45	25.95	24.00
24	22.95	24.25	24.25	24.40	24.20	23.85	17.65	23.55	22.30	18.10	26.00	23.90
25	23.10	24.25	24.25	24.40	24.20	23.80	17.55	23.80	22.40	17.80	26.00	23.70
26	23.00	24.25	24.25	24.40	24.20	23.80	17.50	23.90	22.50	17.50	26.00	23.65
27	23.00	24.25	24.25	24.45	24.20	23.70	17.45	23.85	22.45	17.15	26.00	23.55
28	23.00	24.25	24.25	24.45	24.15	23.65	17.45	23.85	22.45	16.80	26.00	23.50
29	22.95	24.25	24.25	24.45	24.10	23.60	17.45	23.75	22.45	16.00	26.05	23.45
30	22.95	24.20	24.25	24.45	---	23.50	17.45	23.70	22.45	15.00	26.05	23.45
31	23.00	---	24.25	24.45	---	23.35	---	23.65	---	15.10	26.05	---
MEAN	22.30	24.07	24.25	24.37	24.33	23.93	20.27	20.13	22.51	19.93	23.37	24.91
MAX	23.10	24.25	24.25	24.45	24.45	24.10	23.15	23.90	23.55	22.45	26.60	26.05
MIN	21.70	23.00	24.20	24.25	24.10	23.35	17.45	16.20	21.50	15.00	16.35	23.45

CAL YR 1983 MEAN 22.26 MAX 24.25 MIN 16.95
WTR YR 1984 MEAN 22.85 MAX 26.60 MIN 15.00

08401000 PECOS RIVER BELOW MCMILLAN DAM, NM

LOCATION.--Lat 32°35'40", long 104°20'59", in NW¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank 700 ft downstream from gates in McMillan Dam, 3.4 mi southeast of Lakewood, and at mile 484.1.

DRAINAGE AREA.--16,990 mi^2, approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1908, January 1909 to December 1911, August 1939 to December 1940, December 1946 to current year (January 1906, and January 1910 to December 1911, gage heights and discharge measurements only). Published as "near Lakewood" 1906-11, and as "below McMillan Dam, near Lakewood" 1939-40.

REVISED RECORDS.--WSP 1512: 1909.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,238.21 ft National Geodetic Vertical Datum of 1929. See WSP 1732 for history of changes prior to Mar. 12, 1957. Supplemental water-stage recorders on McMillan Dam spillways, No. 1 and 2, Apr. 6, 1960, to Sept. 30, 1970.

REMARKS.--Records good. Flow completely regulated by Lake McMillan (station 08400500). Flow also regulated by several other reservoirs. Except as noted, discharge figures do not include flow over Lake McMillan spillways which enters the Pecos River below this gage. Diversions and ground-water withdrawals for irrigation of about 171,000 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--39 years (1907, 1940, 1948-84), 96.0 ft^3/s, 69,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft^3/s Aug. 23, 1966, includes flow of spillways; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, may have reached 60,000 ft^3/s. The flood of Aug. 3, 1893, damaged McMillan Dam, then under construction, and destroyed Avalon Dam; this flood was described as "highest in 50 years" at Carlsbad.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 833 ft^3/s Aug. 14; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	.12	.00	.00	.00	.15	198	.00	204	101	38	.31
2	3.9	.14	.00	.00	.00	.00	198	66	243	83	82	.18
3	3.5	.18	.00	.00	.00	.00	196	124	149	67	173	.04
4	2.9	.18	.00	.00	.00	.00	195	123	38	68	210	.02
5	2.9	.18	.00	.00	.00	.00	196	122	3.1	68	228	.02
6	2.9	.14	.00	.00	.00	.00	197	121	2.9	75	282	.03
7	2.6	.01	.00	.00	.00	.00	195	103	70	99	287	83
8	2.3	.00	.00	.00	.00	.00	132	110	106	118	273	173
9	1.4	.00	.00	.00	.00	.00	162	120	105	195	55	173
10	.80	.00	.00	.00	.00	.00	223	122	125	247	.36	213
11	.70	.00	.00	.00	.00	.00	260	123	205	272	.15	231
12	.60	.00	.00	.00	.00	.00	272	126	207	367	.16	231
13	.50	.00	.00	.00	.00	.00	271	128	244	293	294	231
14	.40	.00	.00	.00	.00	.00	253	129	276	226	833	231
15	.30	.00	.00	.00	.00	.00	197	191	228	195	832	217
16	.30	.00	.00	.00	.00	.00	196	184	203	194	502	173
17	.30	.00	.00	.00	.00	.00	211	71	144	284	243	175
18	.30	.00	.00	.00	.00	.00	269	.75	102	325	35	175
19	.30	.00	.00	.00	.00	.00	267	.44	37	325	193	214
20	.30	.00	.00	.00	.00	.00	387	.57	2.1	295	194	258
21	.30	.00	.00	.00	.00	.00	480	.32	.71	281	148	267
22	.30	.00	.00	.00	.00	.00	467	25	.71	279	.79	239
23	.30	.00	.00	.00	.00	.00	284	42	.71	276	.56	239
24	.30	.00	.00	.00	.00	.00	81	103	.62	274	.48	239
25	64	.00	.00	.00	.00	.00	.49	104	.52	256	.40	196
26	80	.00	.00	.00	.00	.00	.32	105	93	243	.35	152
27	81	.00	.00	.00	.00	65	.00	105	116	239	.35	108
28	81	.00	.00	.00	.00	101	.00	105	22	343	.34	83
29	45	.00	.00	.00	.00	125	.00	105	101	223	.37	1.3
30	.20	.00	.00	.03	---	201	.00	105	101	.05	.34	1.2
31	.12	---	.00	.00	---	198	---	132	---	.96	.31	---
TOTAL	384.22	.95	.00	.03	.00	690.15	5787.81	2896.08	3130.37	6312.01	4906.96	4304.10
MEAN	12.4	.032	.000	.001	.000	22.3	193	93.4	104	204	158	143
MAX	81	.18	.00	.03	.00	201	480	191	276	367	833	267
MIN	.12	.00	.00	.00	.00	.00	.00	.00	.52	.05	.15	.02
AC-FT	762	1.9	.00	.06	.00	1370	11480	5740	6210	12520	9730	8540

CAL YR 1983 TOTAL 38580.43 MEAN 106 MAX 438 MIN .00 AC-FT 76520
WTR YR 1984 TOTAL 28412.68 MEAN 77.6 MAX 833 MIN .00 AC-FT 56360

BEST COPY AVAILABLE

08401100 PECOS RIVER ABOVE SEVEN RIVERS, NEAR LAKEWOOD, NM

LOCATION.--Lat 32°34'42", long 104°22'42", in NE¼NE¼NE¼ sec.16, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank, 0.5 mi upstream from mouth of Seven Rivers, 2.6 mi downstream from Lake McMillan, and 3.6 mi south of Lakewood, and at mile 481.4.

DRAINAGE AREA.--17,000 mi^2, approximately (contributing area).

PERIOD OF RECORD.--May 1974 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,213.52 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records good. Flow regulated by Lake McMillan (station 08400500), and by several other reservoirs. Water from spillway No. 2 at Lake McMillan was bypassing the gage for the period of Aug. 12-17. Diversions and ground-water withdrawals for irrigation of about 171,000 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined, 2,080 ft^3/s Oct. 26, 1974; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, greater than 500 ft^3/s at times; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	.00	.00	.00	.00	.00	202	.00	211	105	27	.27
2	.75	.00	.00	.00	.00	.00	203	52	260	85	79	.27
3	.64	.00	.00	.00	.00	.00	201	130	182	64	167	.27
4	.64	.00	.00	.00	.00	.00	201	130	48	66	209	.27
5	.64	.00	.00	.00	.00	.00	203	129	.32	66	226	.12
6	.58	.00	.00	.00	.00	.00	203	129	.06	74	284	.12
7	.51	.00	.00	.00	.00	.00	202	111	60	95	289	63
8	.50	.00	.00	.00	.00	.00	140	114	109	110	280	166
9	.40	.00	.00	.00	.00	.00	161	128	109	179	67	170
10	.34	.00	.00	.00	.00	.00	229	130	134	240	.00	211
11	.38	.00	.00	.00	.00	.00	269	131	229	270	.00	240
12	.34	.00	.00	.00	.00	.00	284	133	233	350	.00	246
13	.14	.00	.00	.00	.00	.00	283	136	272	300	a	245
14	.05	.00	.00	.00	.00	.00	269	136	321	240	a	243
15	.00	.00	.00	.00	.00	.00	205	197	279	200	a	229
16	.00	.00	.00	.00	.00	.00	204	203	246	195	428	180
17	.00	.00	.00	.00	.00	.00	217	85	181	270	325	180
18	.00	.00	.00	.00	.00	.00	283	1.2	125	320	34	180
19	.00	.00	.00	.00	.00	.00	282	.00	59	320	274	220
20	.00	.00	.00	.00	.00	.00	396	.00	3.7	300	279	268
21	.00	.00	.00	.00	.00	.00	a	.00	.10	290	234	284
22	.00	.00	.00	.00	.00	.00	499	20	.00	280	.60	249
23	.00	.00	.00	.00	.00	.00	320	33	.00	275	.36	248
24	.00	.00	.00	.00	.00	.00	101	110	.00	270	.30	248
25	43	.00	.00	.00	.00	.00	.16	109	.00	260	.27	205
26	77	.00	.00	.00	.00	.00	.00	109	100	240	.27	159
27	77	.00	.00	.00	.00	49	.00	109	125	230	.27	104
28	77	.00	.00	.00	.00	103	.00	109	20	340	.27	88
29	30	.00	.00	.00	.00	120	.00	109	105	220	.27	1.6
30	.00	.00	.00	.00	---	204	.00	109	105	.12	.27	.54
31	.00	---	.00	.00	---	202	---	136	---	.00	.27	---
TOTAL	310.78	.00	.00	.00	.00	678.00	---	3028.20	3517.18	6254.12	---	4429.46
MEAN	10.0	.000	.000	.000	.000	21.9	---	97.7	117	202	---	148
MAX	77	.00	.00	.00	.00	204	---	203	321	350	---	284
MIN	.00	.00	.00	.00	.00	.00	---	.00	.00	.00	---	.12
AC-FT	616	.00	.00	.00	.00	1340	---	6010	6980	12410	---	8790

CAL YR 1983 TOTAL 36644.40 MEAN 100 MAX 453 MIN .00 AC-FT 72680

a Maximum discharge greater than 500 ft^3/s.

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¼SE¼NW¼ sec.7, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi south of Seven Rivers, 2.6 mi upstream from mouth, and 4.0 mi southwest of Lakewood. Mouth at Pecos River mile 480.9.

DRAINAGE AREA.--220 mi^2, approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,276 ft, from topographic map. Prior to July 8, 1965, at site 400 ft upstream at datum 0.52 ft higher.

REMARKS.--Records good. No surface diversions above station, ground-water withdrawals for 240 acres, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 4.49 ft^3/s, 3,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 ft^3/s May 30, 1965, gage height, 20.0 ft, from floodmarks, present site and datum, from rating curve extended above 5,700 ft^3/s on basis of slope-area measurements at gage heights 18.15 ft and 20.0 ft; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft^3/s, gage height, 22.8 ft, from old debris on left bank, former site and datum, from rating curve extended above 5,700 ft^3/s on basis of slope-area measurement at gage height 21.8 ft. Probable date of flood, Oct. 7, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s and maximum (*), from rating curve extended above 3,400 ft^3/s on basis of slope area measurements at gage heights 18.15 ft and 20.0 ft:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 9	0200	6100	12.81	Aug. 10	1400	*16000	17.27
June 10	2100	2810	10.36	Aug. 11	1400	7130	13.43
Aug. 8	2300	3890	11.29				

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	17	.00	.00	.00
4	.00	61	.00	.00	.00	.00	.00	.00	1.8	.00	.00	.00
5	.00	.38	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	202	.00
9	494	.00	.00	.00	.00	.00	.00	.00	.00	.00	450	.00
10	.20	.00	.00	.00	.00	.00	.00	.00	285	.00	2560	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	1270	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	34	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	494.20	61.38	.00	.00	.00	.00	.00	.00	314.80	17.00	4516.02	.00
MEAN	15.9	2.05	.000	.000	.000	.000	.000	.000	10.5	.55	146	.000
MAX	494	61	.00	.00	.00	.00	.00	.00	285	17	2560	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	980	122	.00	.00	.00	.00	.00	.00	624	34	8960	.00

CAL YR 1983 TOTAL 557.59 MEAN 1.53 MAX 494 MIN .00 AC-FT 1110
WTR YR 1984 TOTAL 5403.40 MEAN 14.8 MAX 2560 MIN .00 AC-FT 10720

BEST COPY AVAILABLE

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM

LOCATION.--Lat 32°31'54", long 104°22'40", in SW¼NW¼NW¼ sec.27, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank, at mouth of Willow Draw 2.4 mi downstream from South Seven Rivers, 4.2 mi southeast of Seven Rivers, 6.0 mi south of Lakewood, 11.5 mi northwest of Carlsbad, and at mile 478.6.

DRAINAGE AREA.--17,650 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1947 to September 1950, October 1971 to current year (operated as a low-flow station only). Records prior to October 1971 not equivalent due to spring inflow between sites.

GAGE.--Water-stage recorder. Datum of gage is 3,198.44 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to October 1971 at site 0.5 mi upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake McMillan (station 08400500), and by several other reservoirs. Flows from Spillway No. 2 that bypasses upstream stations for the period Aug. 12-17 are included in the total flow. Diversions and ground-water withdrawal for irrigation of about 173,000 acres, 1959 determination, above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,160 ft^3/s Sept. 15, 1949, July 24, 1950, from rating curve extended above 780 ft^3/s; maximum gage height 5.38 ft Sept. 15, 1949, site and datum then in use; minimum discharge, 7.0 ft^3/s July 20, 1977, Aug. 12, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, greater than 500 ft^3/s several days; minimum, 26 ft^3/s Mar. 16, 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	33	40	35	39	37	227	28	230	135	49	96
2	37	33	41	35	39	36	227	60	250	128	104	99
3	36	34	41	36	39	34	227	145	210	99	189	95
4	36	62	41	36	40	33	225	143	150	97	241	92
5	36	38	41	36	41	33	226	142	42	95	252	84
6	35	34	39	37	41	31	227	142	41	98	317	80
7	35	34	39	36	41	31	225	130	85	127	323	135
8	36	35	39	36	42	31	175	128	143	134	323	268
9	429	35	39	36	42	30	179	142	142	224	a	266
10	49	35	40	35	42	30	249	144	266	268	a	303
11	35	36	40	35	42	28	284	145	335	304	a	333
12	34	37	40	35	42	28	298	147	251	398	a	331
13	34	37	41	35	42	28	298	148	277	340	a	331
14	34	38	39	35	42	27	289	150	316	260	a	329
15	34	38	39	35	42	27	228	201	281	226	a	319
16	34	38	39	35	42	26	226	223	251	225	a	260
17	34	39	38	36	42	26	229	116	202	307	449	260
18	34	39	38	35	41	28	293	34	145	373	80	259
19	35	39	38	35	41	33	292	29	104	369	291	295
20	36	39	39	34	41	34	419	28	48	339	291	348
21	35	40	39	34	41	35	a	28	46	317	259	370
22	34	40	39	34	40	36	a	45	45	313	78	328
23	34	40	37	34	39	36	381	49	44	312	76	327
24	34	40	37	34	39	35	142	131	44	309	77	326
25	50	40	36	34	39	35	35	136	43	291	82	286
26	133	40	36	35	38	35	32	136	100	276	83	237
27	134	40	36	35	37	63	32	136	160	275	81	175
28	134	40	37	36	37	114	30	135	50	378	84	167
29	87	40	36	37	37	122	29	135	133	327	89	66
30	33	41	36	37	---	230	28	135	136	37	98	61
31	33	---	35	38	---	228	---	160	---	34	101	---
TOTAL	1852	1154	1195	1096	1170	1580	---	3651	4570	7415	---	6926
MEAN	59.7	38.5	38.5	35.4	40.3	51.0	---	118	152	239	---	231
MAX	429	62	41	38	42	230	---	223	335	398	---	370
MIN	33	33	35	34	37	26	---	28	41	34	---	61
AC-FT	3670	2290	2370	2170	2320	3130	---	7240	9060	14710	---	13740

CAL YR 1983 TOTAL 50516 MEAN 138 MAX 565 MIN 26 AC-FT 100200

a Maximum discharge greater than 500 ft^3/s.

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1962, 1978-79, 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
NOV 02...	1315	34	5100	4850	7.9	7.9	23.5	20.0	9.2	2000	1900
JAN 04...	1645	37	6000	--	8.0	--	15.0	17.0	9.0	--	--
MAR 01...	1015	36	5100	5010	7.7	7.9	17.5	14.0	10.2	2000	1800
JUL 02...	1830	104	3170	3360	7.9	7.8	26.0	25.5	8.7	1300	1200

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
NOV 02...	570	140	460	5	5.5	1700	860	1.0	17	3800
JAN 04...	--	--	--	--	--	--	--	--	--	--
MAR 01...	550	140	530	5	5.3	1500	910	1.0	17	3700
JUL 02...	370	82	280	4	4.7	1200	470	.70	4.5	2500

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV 02...	1315	280	60
MAR 01...	1015	280	70
JUL 02...	1830	200	60

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SE¼SE¼ sec.3, T.21 S., R.25 E., Eddy County, Hydrologic Unit 13060011, at downstream end of bridge pier nearest left bank on U.S. Highway 285, 2.1 mi upstream from mouth and 10 mi northwest of Carlsbad. Mouth at Pecos River mile 475.2.

DRAINAGE AREA.--285 mi, approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,250 ft, from topographic map.

REMARKS.--Records good. Diversions for irrigation of 220 acres, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--21 years, 7.83 ft^3/s, 5,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft^3/s Aug. 23, 1966, gage height, 15.35 ft, from rating curve extended above 8,500 ft^3/s on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since about 1941 the maximum discharge probably occurred Oct. 7, 1954, discharge 63,600 ft^3/s, gage height, 19.2 ft, from highwater marks on downstream end of bridge pier, by slope-area measurement at site 5 mi upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s, from rating curve extended above 8,200 ft^3/s on basis of slope-area measurement of peak flow at gage height 15.35 ft, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 09	0200	6490	10.02	Aug. 10	1530	*16300	12.68

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	616	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	3.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	2680	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	373	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	55	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.1	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	619.20	.00	.00	.00	.00	.00	.00	.00	.01	.00	3118.43	.00
MEAN	20.0	.000	.000	.000	.000	.000	.000	.000	.000	.000	101	.000
MAX	616	.00	.00	.00	.00	.00	.00	.00	.01	.00	2680	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1230	.00	.00	.00	.00	.00	.00	.00	.02	.00	6190	.00

CAL YR 1983 TOTAL 619.20 MEAN 1.70 MAX 616 MIN .00 AC-FT 1230
WTR YR 1984 TOTAL 3737.64 MEAN 10.2 MAX 2680 MIN .00 AC-FT 7410

08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'40", long 104°19'58", in lot 14, sec.6, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank at damsite 3 of Carlsbad project of Bureau of Reclamation, about 1 mi upstream from flow line of Lake Avalon, 1.3 mi downstream from Rocky Arroyo, 8.0 mi northwest of Carlsbad, and at mile 473.8.

DRAINAGE AREA.--17,980 mi^2, approximately (contributing area).

PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.

REVISED RECORDS.--WSP 1512: 1946-47(M), 1948(P), 1949, 1950(P). WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,171.31 ft Bureau of Reclamation datum. Prior to Aug. 10, 1944, at site 1,000 ft downstream, at datum 1.00 ft higher. Aug. 10, 1944, to Dec. 31, 1966, at present site at datum 1.00 ft higher.

REMARKS.--Records good. Flow regulated by Lake McMillan (station 08400500) since 1893, and by several other reservoirs. Diversions and ground-water withdrawals for irrigation of about 173,000 acres, 1959 determination, above station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--41 years (1940, 1945-84), 155 ft^3/s, 112,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,000 ft^3/s Aug. 23, 1966, gage height, 21.32 ft, present datum, from floodmark, from rating curve extended above 25,000 ft^3/s on basis of slope-area measurement at gage height 19.53 ft; minimum, 4.3 ft^3/s Aug. 5, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 40,000 ft^3/s occurred in Aug. 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft^3/s. Floods of 1893 and 1904 originated above McMillan Dam and contributed to the two failures of Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,200 ft^3/s Aug. 10, gage height, 15.43 ft; minimum 18 ft^3/s July 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	30	37	33	32	37	235	26	211	126	28	95
2	33	30	38	33	34	36	237	33	275	126	76	93
3	32	32	37	33	34	36	235	136	236	93	148	93
4	33	68	36	34	33	36	234	141	146	92	222	89
5	33	44	36	33	33	38	236	139	38	90	225	82
6	33	37	37	33	33	37	237	137	34	90	301	74
7	33	37	38	33	33	36	234	129	56	117	310	103
8	33	36	37	34	33	36	195	116	126	122	316	250
9	1030	35	38	33	34	36	164	134	129	214	586	256
10	56	33	36	33	34	36	251	136	151	260	5370	282
11	29	33	36	33	35	36	293	137	411	312	2880	319
12	28	33	36	34	36	36	323	139	247	401	1130	322
13	28	33	43	33	36	36	325	141	269	379	1240	322
14	27	34	37	33	34	35	324	142	324	276	2060	322
15	27	34	43	33	35	35	249	180	294	235	1320	321
16	27	34	38	33	36	35	244	243	249	231	760	264
17	27	35	37	33	35	34	244	137	212	321	500	262
18	28	35	38	33	36	33	315	48	137	380	81	259
19	30	36	38	32	37	34	319	31	112	376	284	280
20	31	35	38	32	37	35	398	29	46	355	305	333
21	31	36	38	32	36	35	572	29	44	319	292	364
22	30	36	36	32	36	34	567	34	43	319	89	331
23	36	37	36	32	38	35	432	48	41	319	78	326
24	30	37	36	31	37	35	172	123	40	315	78	322
25	45	37	33	31	36	34	36	137	37	302	80	293
26	130	36	34	32	38	35	27	135	68	281	82	246
27	134	37	31	32	37	48	31	135	164	273	83	173
28	134	38	33	32	36	130	31	137	79	351	83	167
29	80	37	32	32	37	130	26	137	106	366	85	75
30	30	37	32	32	---	232	27	137	126	35	88	57
31	30	---	33	32	---	238	---	151	---	23	94	---
TOTAL	2343	1092	1128	1011	1021	1699	7213	3557	4451	7499	19274	6775
MEAN	75.6	36.4	36.4	32.6	35.2	54.8	240	115	148	242	622	226
MAX	1030	68	43	34	38	238	572	243	411	401	5370	364
MIN	27	30	31	31	32	33	26	26	34	23	28	57
AC-FT	4650	2170	2240	2010	2030	3370	14310	7060	8830	14870	38230	13440

CAL YR 1983 TOTAL 48837 MEAN 134 MAX 1030 MIN 22 AC-FT 96870
WTR YR 1984 TOTAL 57063 MEAN 156 MAX 5370 MIN 23 AC-FT 113200

08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'25", long 104°15'08", in NW¼SW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 220 ft downstream from headgates in Avalon Dam, and 3.3 mi, north of Carlsbad. Pecos River mile 467.2.

PERIOD OF RECORD.--July 1939 to current year (monthly discharge only July 1939 to September 1965). January 1941 to March 1951 published in WSP 1732.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,156.50 ft Bureau of Reclamation datum. Prior to March 1951 at site 20 ft upstream at datum 0.9 ft higher.

REMARKS.--Records good. Carlsbad main canal diverts water from Lake Avalon (station 08403800) for irrigation of about 25,000 acres in the Carlsbad Irrigation District. About 1,600 acres are irrigated on the left bank, most of it upstream from gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 103 ft^3/s, 74,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 526 ft^3/s Sept. 15, 16, 1946; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	.08	.00	.00	.00	123	198	117	190	106	203	213
2	21	.00	.00	.00	.00	101	185	113	165	104	189	177
3	11	.00	.00	.00	.00	80	223	130	120	66	216	199
4	.00	.00	.00	.00	.00	85	223	116	107	56	201	172
5	.00	.00	.00	.00	.00	95	211	108	79	84	195	173
6	51	.00	.00	.00	.00	101	214	70	110	127	284	181
7	65	.00	.00	.00	.00	176	187	49	145	131	308	207
8	52	.00	.00	.00	.00	135	150	101	124	143	267	188
9	66	.00	.00	.00	.00	39	255	109	141	225	127	188
10	105	.00	.00	.00	.00	.00	291	128	170	267	30	225
11	92	.00	.00	.00	.00	.00	305	136	221	318	.00	250
12	99	.00	.00	.00	.00	.00	252	143	236	309	.00	288
13	92	.00	.00	.00	.00	.00	242	131	270	240	.17	293
14	72	.00	.00	.00	.00	.00	193	199	252	217	1.6	313
15	54	.00	.00	.00	.00	.00	189	222	230	197	.00	254
16	70	.00	.00	.00	.00	.00	229	154	188	215	.00	218
17	156	.00	.00	.00	.00	.00	220	71	144	357	.00	267
18	157	.00	.00	.00	.00	.00	235	28	164	378	.00	281
19	104	.00	.00	.00	.00	.00	218	28	64	337	27	304
20	43	.00	.00	.00	.00	.00	214	28	7.2	283	92	325
21	43	.00	.00	.00	.00	.00	143	19	32	308	116	305
22	37	.00	.00	.00	.00	.00	122	24	60	320	134	267
23	43	.00	.00	.00	.00	.00	165	59	55	297	183	252
24	79	.00	.00	.00	.00	.00	167	86	46	270	169	231
25	121	.00	.00	.00	.00	.00	168	109	90	203	125	267
26	94	.00	.00	.00	.00	60	203	114	170	189	137	247
27	89	.00	.00	.00	54	187	172	95	180	223	211	192
28	101	.00	.00	.00	128	195	142	132	132	190	220	157
29	102	.00	.00	.00	138	203	127	152	106	124	201	113
30	81	.00	.00	.00	---	203	122	192	92	148	224	101
31	38	---	.00	.00	---	192	---	208	---	180	227	---
TOTAL	2177.00	.08	.00	.00	320.00	1975.00	5965	3371	4090.2	6612	4087.77	6848
MEAN	70.2	.003	.000	.000	11.0	63.7	199	109	136	213	132	228
MAX	157	.08	.00	.00	138	203	305	222	270	378	308	325
MIN	.00	.00	.00	.00	.00	.00	122	19	7.2	56	.00	101
AC-FT	4320	.2	.00	.00	635	3920	11830	6690	8110	13110	8110	13580

CAL YR 1983 TOTAL 42453.31 MEAN 116 MAX 350 MIN .00 AC-FT 84210
WTR YR 1984 TOTAL 35446.05 MEAN 96.8 MAX 378 MIN .00 AC-FT 70310

08403800 LAKE AVALON NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'27", long 104°15'05", in NW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on headwall at outlet gate of dam on Pecos River, 3.3 mi north of Carlsbad, and at mile 467.2.

DRAINAGE AREA.--18,070 mi^2, approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (month end gage heights and contents). October 1965 to current year. Month end gage heights January 1919 to December 1938 in files of Pecos River Commission.

REVISED RECORDS.--WSP 898: 1939.

GAGE.--Nonrecording gage. Datum of gage is 3,157.0 ft National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Lake is formed by Avalon Dam, an earthfill structure. The original Eddy (Avalon) Dam was completed and storage began in 1891. The dam was destroyed by flood of Aug. 3, 1893; repaired immediately. The dam was destroyed again Oct. 2, 1904; construction of present dam commenced on June 1, 1906, and was 88 percent complete June 30, 1907. Capacity (based on 1979 resurvey, new capacity table put into use January 1, 1982), 4,330 acre-ft between gage heights 0.0 (sill of outlet gates) and 20.4 ft, crest of spillway No. 2. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Water is used by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table based on August 1964 survey furnished by Carlsbad Irrigation District. Capacity table based on 1979 resurvey furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents, 11,000 acre-ft May 22, 1941, gage height, 25.0 ft; no storage at times when natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,900 acre-ft Aug. 17, gage height, 21.00 ft; minimum, 616 acre-ft July 12, gage height, 15.30 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	975	2250	3280	3410	2630	1030	1280	864	919	1280	1890
2	1210	1030	2290	3320	3410	2480	1060	1090	975	919	975	1820
3	1210	1060	2330	3360	3410	2400	1150	975	1210	946	760	1470
4	1280	1150	2400	3320	3360	2220	1090	975	1410	975	760	1340
5	1310	1280	2360	3320	3360	2100	1090	975	1410	1030	760	1150
6	1340	1410	2440	3360	3360	1960	1090	1030	1280	975	837	975
7	1210	1410	2480	3360	3360	1750	1090	1180	1030	919	811	710
8	1150	1440	2560	3360	3360	1410	1210	1240	975	864	837	639
9	2250	1440	2600	3360	3360	1280	1090	1240	975	811	1150	710
10	2910	1470	2630	3360	3360	1280	864	1240	891	710	1890	811
11	2670	1510	2670	3360	3360	1310	811	1240	1150	710	4520	919
12	2480	1540	2710	3360	3360	1340	710	1210	1150	616	4330	975
13	2360	1540	2710	3360	3360	1440	811	1210	1120	864	4610	1030
14	2180	1540	2750	3360	3360	1470	919	1150	1090	1030	4240	1090
15	2070	1570	2750	3360	3360	1470	1000	975	1210	1060	4290	1090
16	1960	1570	2750	3360	3360	1510	1060	1000	1280	1090	4150	1180
17	1780	1610	2790	3360	3320	1540	1030	1150	1340	1030	4900	1210
18	1540	1710	2790	3360	3320	1610	1000	1340	1410	946	4470	1150
19	1340	1820	2790	3360	3320	1640	1120	1340	1410	891	4520	1030
20	1280	1820	2870	3360	3320	1680	1150	1280	1540	946	4610	1030
21	1240	1850	2910	3360	3360	1710	1680	1240	1610	975	4760	1030
22	1210	1890	2950	3360	3360	1710	2480	1240	1540	919	4430	1090
23	1210	1920	3030	3360	3360	1750	3200	1210	1470	919	4240	1180
24	1180	1960	3030	3360	3360	1780	3360	1150	1410	919	3970	1280
25	975	2000	3070	3410	3360	1820	3200	1210	1340	975	3750	1470
26	919	2070	3120	3410	3360	1820	3110	1210	1150	1180	3620	1410
27	975	2140	3120	3410	3200	1610	2440	1240	975	1280	3410	1340
28	1090	2180	3200	3410	3200	1310	1960	1280	975	1340	2910	1280
29	1150	2180	3200	3410	2870	1150	1820	1210	919	1750	2790	1280
30	1060	2180	3240	3410	---	975	1540	1120	864	1960	2560	1150
31	975	---	3280	3410	---	1030	---	975	---	1610	2180	---
MAX	2910	2180	3280	3410	3410	2630	3360	1340	1610	1960	4900	1890
MIN	919	975	2250	3280	2870	975	710	975	864	616	760	639
(†)	-235	+1205	+1100	+130	-540	-1840	+510	-565	-111	+746	+570	-1030

CAL YR 1983 MAX 3280 MIN 532 (†) +1060
WTR YR 1984 MAX 4900 MIN 616 (†) -60

(†) CHANGE IN CONTENTS IN ACRE-FEET.

08403800 LAKE AVALON NEAR CARLSBAD, NM -- Continued

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.45	16.00	17.90	19.20	19.35	18.40	16.10	16.50	15.80	15.90	16.50	17.40
2	16.40	16.10	17.95	19.25	19.35	18.20	16.15	16.20	16.00	15.90	16.00	17.30
3	16.40	16.15	18.00	19.30	19.35	18.10	16.30	16.00	16.40	15.95	15.60	16.80
4	16.50	16.30	18.10	19.25	19.30	17.85	16.20	16.00	16.70	16.00	15.60	16.60
5	16.55	16.50	18.05	19.25	19.30	17.70	16.20	16.00	16.70	16.10	15.60	16.30
6	16.60	16.70	18.15	19.30	19.30	17.50	16.20	16.10	16.50	16.00	15.75	16.00
7	16.40	16.70	18.20	19.30	19.30	17.20	16.20	16.35	16.10	15.90	15.70	15.50
8	16.30	16.75	18.30	19.30	19.30	16.70	16.40	16.45	16.00	15.80	15.75	15.35
9	17.90	16.75	18.35	19.30	19.30	16.50	16.20	16.45	16.00	15.70	16.30	15.50
10	18.75	16.80	18.40	19.30	19.30	16.50	15.80	16.45	15.85	15.50	17.40	15.70
11	18.45	16.85	18.45	19.30	19.30	16.55	15.70	16.45	16.30	15.50	20.60	15.90
12	18.20	16.90	18.50	19.30	19.30	16.60	15.50	16.40	16.30	15.30	20.40	16.00
13	18.05	16.90	18.50	19.30	19.30	16.75	15.70	16.40	16.25	15.80	20.70	16.10
14	17.80	16.90	18.55	19.30	19.30	16.80	15.90	16.30	16.20	16.10	20.30	16.20
15	17.65	16.95	18.55	19.30	19.30	16.80	16.05	16.00	16.40	16.15	20.35	16.20
16	17.50	16.95	18.55	19.30	19.30	16.85	16.15	16.05	16.50	16.20	20.20	16.35
17	17.25	17.00	18.60	19.30	19.25	16.90	16.10	16.30	16.60	16.10	21.00	16.40
18	16.90	17.15	18.60	19.30	19.25	17.00	16.05	16.60	16.70	15.95	20.55	16.30
19	16.60	17.30	18.60	19.30	19.25	17.05	16.25	16.60	16.70	15.85	20.60	16.10
20	16.50	17.30	18.70	19.30	19.25	17.10	16.30	16.50	16.90	15.95	20.70	16.10
21	16.45	17.35	18.75	19.30	19.30	17.15	17.10	16.45	17.00	16.00	20.75	16.10
22	16.40	17.40	18.80	19.30	19.30	17.15	18.20	16.45	16.90	15.90	20.50	16.20
23	16.40	17.45	18.90	19.30	19.30	17.20	19.10	16.40	16.80	15.90	20.30	16.35
24	16.35	17.50	18.90	19.30	19.30	17.25	19.30	16.30	16.70	15.90	20.00	16.50
25	16.00	17.55	18.95	19.35	19.30	17.30	19.10	16.40	16.60	16.00	19.75	16.80
26	15.90	17.65	19.00	19.35	19.30	17.30	19.00	16.40	16.30	16.35	19.60	16.70
27	16.00	17.75	19.00	19.35	19.10	17.00	18.15	16.45	16.00	16.50	19.35	16.60
28	16.20	17.80	19.10	19.35	19.10	16.55	17.50	16.50	16.00	16.60	18.75	16.50
29	16.30	17.80	19.10	19.35	18.70	16.30	17.30	16.40	15.90	17.20	18.60	16.50
30	16.15	17.80	19.15	19.35	---	16.00	16.90	16.25	15.80	17.50	18.30	16.30
31	16.00	---	19.20	19.35	---	16.10	---	16.00	---	17.00	17.80	---
MEAN	16.82	17.03	18.58	19.30	19.26	17.04	16.77	16.33	16.36	16.08	18.69	16.29
MAX	18.75	17.80	19.20	19.35	19.35	18.40	19.30	16.60	17.00	17.50	21.00	17.40
MIN	15.90	16.00	17.90	19.20	18.70	16.00	15.50	16.00	15.80	15.30	15.60	15.35

CAL YR 1983   MEAN 16.91   MAX 19.20   MIN 15.10
WTR YR 1984   MEAN 17.38   MAX 21.00   MIN 15.30

08404000 PECOS RIVER BELOW AVALON DAM, NM

LOCATION.--Lat 32°28'55", long 104°15'47", in SW¼SW¼NE¼ sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft below Avalon Dam, 4.5 mi northwest of Carlsbad, and at mile 466.3.

DRAINAGE AREA.--18,080 mi^2, approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1907, (published as "at Avalon"), June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,130 ft, from topographic map. January 1906 to March 1907 nonrecording gage at site 0.5 mi upstream at different datum.

REMARKS.--Records poor. Flow completely regulated by Lake Avalon (station 08403800) since 1891. Flow also regulated by several other reservoirs. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres, 1959 determination. Station bypassed by Carlsbad main canal (station 08403500).

AVERAGE DISCHARGE.--33 years, 30.4 ft^3/s, 22,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,500 ft^3/s Aug. 23, 1966, gage height, 26.4 ft, from floodmarks, from rating curve extended above 33,000 ft^3/s on basis of computation of peak flow over Tansill Dam 5.8 mi downstream; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, caused in part, by failure of Avalon Dam, probably exceeded 90,000 ft^3/s and is probably the greatest flood since 1842. A major flood occured Aug. 3, 1893, and was described as "greatest in 50 years"; it damaged McMillan Dam, then under construction, and washed out the original Avalon Dam. Another major flood occurred Aug. 7, 1916, discharge 70,000 ft^3/s at site 6.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,900 ft^3/s Aug. 10, gage height, 13.30 ft from floodmarks, from rating curve extended above 5,700 ft^3/s based on rating of flows over Tansill Dam 5.8 mi downstream; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2020	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8950	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1320	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	874	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1710	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1200	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	165	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	572	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	50	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	95	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	158	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	143	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	68	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	17326.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	559	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	8950	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	34370	.00

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT 0
WTR YR 1984 TOTAL 17326.00 MEAN 47.3 MAX 8950 MIN .00 AC-FT 34370

08405000 PECOS RIVER AT CARLSBAD, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 32°24'42", long 104°13'17", in SE¼NE¼NE¼ sec. 7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, immediately downstream from Lower Tansil Dam, which is approximately 0.2 mi upstream from Dark Canyon, and 0.5 mi downstream from the Greene Street Bridge on U.S. Highway 62-180 in Carlsbad.

DRAINAGE AREA.--18,100 mi^2, approximately (contributing area).

PERIOD OF RECORD.--Water years 1905-07, 1937-46, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.
WATER TEMPERATURES: July 1951 to current year.

REMARKS.--Prior to impoundment above Lower Tansil Dam in January 1970 samples were collected at gage on Greene Street Bridge. Additional samples were collected at 08405200 Pecos River below Dark Canyon Draw for comparison with those collected at this station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,800 microsiemens Aug. 3, 1974; minimum daily, 401 microsiemens Sept. 23, 1974.
WATER TEMPERATURES: Maximum daily, 38.0°C May 28, 1969; minimum daily, 0.0°C Dec. 18, 1965.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,420 microsiemens Oct. 1; minimum daily, 487 microsiemens Aug. 13.
WATER TEMPERATURES: Maximum daily, 31.0°C Aug. 28; minimum daily, 1.0°C Dec. 25.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT												
04...	1600	7.7	4320	4230	7.9	8.0	28.0	25.0	--	1600	1500	400
NOV												
04...	1630	12	3700	3520	8.0	7.9	22.0	20.0	8.3	1300	1200	340
DEC												
05...	1230	16	3100	3360	8.0	7.8	16.0	11.0	10.8	1400	1200	390
JAN												
06...	1145	14	--	2950	8.2	7.7	14.0	7.5	12.2	1100	970	290
FEB												
06...	1300	15	--	2840	8.0	7.9	18.0	10.5	12.0	1100	880	270
MAR												
06...	1215	18	2790	2750	8.2	7.9	13.0	10.5	11.0	1000	860	260
30...	1400	16	3010	3050	8.2	7.9	24.0	15.0	10.4	1100	980	270
MAY												
02...	1600	12	3200	3390	8.2	7.9	30.0	20.0	9.4	1200	1100	280
JUN												
05...	1200	13	3490	3570	8.1	7.9	30.0	25.0	8.8	1300	1200	320
JUL												
05...	1700	14	3100	3310	8.0	7.8	34.5	29.5	7.8	1200	1000	300
25...	1400	13	3250	3390	8.0	8.0	24.5	28.0	8.2	1200	1100	310
SEP												
05...	1100	24	2380	2340	8.1	7.8	26.0	25.0	7.5	870	730	230

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT											
04...	150	450	5	5.8	140	.000	1400	700	.90	24	3200
NOV											
04...	120	330	4	5.0	--	--	1100	560	.80	19	2600
DEC											
05...	110	310	4	4.3	--	--	1100	600	.80	17	2600
JAN											
06...	100	260	3	3.9	--	--	890	440	.70	16	2100
FEB											
06...	93	240	3	3.7	--	--	820	400	.70	16	1900
MAR											
06...	91	250	4	4.0	--	--	740	410	.70	23	1900
30...	110	260	3	4.0	--	--	920	450	.70	13	2100
MAY											
02...	110	300	4	4.3	--	--	1000	540	.60	7.6	2300
JUN											
05...	120	350	4	4.5	--	--	1000	580	.80	7.8	2400
JUL											
05...	100	310	4	4.5	--	--	980	520	.70	4.9	2300
25...	110	300	4	4.7	--	--	980	520	.70	17	2300
SEP											
05...	73	200	3	4.7	--	--	660	320	.10	13	1600

08405000 PECOS RIVER AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT			
04...	1600	320	90
NOV			
04...	1630	240	80
DEC			
05...	1230	210	60
JAN			
06...	1145	190	50
FEB			
06...	1300	170	30
MAR			
06...	1215	170	50
30...	1400	180	30
MAY			
02...	1600	210	20
JUN			
05...	1200	210	80
JUL			
05...	1700	210	40
25...	1400	220	110
SEP			
05...	1100	150	30

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4420	3740	3590	3090	2800	2820	3050	3300	3480	3950	3550	1960
2	4340	3710	3530	3050	2820	2800	3010	3350	3560	2750	3570	2050
3	4310	3700	3460	3030	2770	2820	3050	3350	3600	3200	3610	1790
4	4340	3660	3450	3060	2800	2800	3050	3350	3570	3150	3640	2210
5	4340	3520	3420	3030	2780	2850	3060	3380	3560	3190	3630	2290
6	4360	3630	3410	3010	2800	2820	3060	3380	3600	3280	3630	2460
7	4370	3590	3440	2980	2770	2800	3020	3410	3630	3320	3810	2590
8	4380	3560	3400	2880	2800	2780	3050	3410	3660	3330	3880	2730
9	4350	3590	3320	2930	2780	2800	3040	3450	3690	3410	3420	2850
10	4350	3560	3370	2900	2800	2800	3040	3450	3730	3430	2210	2900
11	4310	3490	3320	2860	2820	2820	3040	3450	3720	3450	500	2980
12	4290	3560	3350	2880	2800	2820	3040	3480	3750	3460	498	3080
13	4290	3520	3290	2860	2840	2840	3040	3480	3750	3390	487	3080
14	4280	3560	3320	2900	2770	2840	3040	3510	3770	3340	636	3140
15	4270	3610	3430	2870	2820	2820	3050	3550	3780	3360	836	3170
16	4280	3590	3030	2900	2790	2840	3040	3480	3770	3340	984	3190
17	4290	3630	3290	2870	2820	2830	3080	2670	3770	3410	997	3250
18	4280	3630	2910	2900	2840	2870	3070	2480	3790	3420	1050	3260
19	4170	3640	3070	2930	2820	2890	3090	2750	3600	3430	1100	3290
20	3680	3660	3220	2900	2840	2900	3120	2960	3340	3460	1140	3350
21	3680	3650	3190	2900	2820	2830	3130	3140	3340	3490	1380	3370
22	3720	3600	3080	2900	2840	2880	3150	3200	3370	3530	1360	3400
23	---	3610	3140	2950	2820	2950	3170	2230	3390	3530	1340	3410
24	3760	3590	3220	2930	2860	2930	3190	3290	3440	3550	1360	3480
25	3730	3600	3240	2950	2840	2980	3210	2910	3390	3370	1400	3480
26	3460	3620	3270	2900	2820	2980	3220	3030	3420	3360	1450	3500
27	3550	3570	3200	2880	2850	2980	3250	3140	3500	3430	1510	3500
28	3610	3620	3170	2860	2820	3000	3290	2960	3530	3430	1640	3500
29	3620	3550	3270	2830	2840	2980	3300	3290	3510	3470	1610	3500
30	3640	3610	3240	2860	---	3030	3300	3360	3520	3480	1690	3570
31	3670	---	3200	2810	---	3030	---	3420	---	3510	1760	---
MEAN	4070	3610	3290	2920	2810	2880	3110	3210	3580	3390	1930	3010

WTR YR 1984 MEAN 3150 MAX 4420 MIN 487

08405000 PECOS RIVER AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	22.0	8.0	5.0	8.0	9.0	15.0	17.0	24.0	30.0	26.0	28.0
2	27.0	19.0	9.0	5.0	9.0	10.0	13.0	16.0	24.0	28.0	30.0	28.0
3	24.0	23.0	10.0	5.0	11.0	11.0	14.0	17.0	25.0	28.0	26.0	28.0
4	26.0	20.0	11.0	6.0	8.0	12.0	15.0	20.0	23.0	27.0	26.0	27.0
5	25.0	19.0	11.0	5.0	10.0	10.0	15.0	19.0	24.0	28.0	28.0	24.0
6	23.0	19.0	9.0	6.0	10.0	9.0	15.0	18.0	23.0	29.0	27.0	25.0
7	26.0	19.0	10.0	7.0	10.0	10.0	15.0	24.0	25.0	28.0	30.0	25.0
8	25.0	19.0	11.0	8.0	10.0	11.0	17.0	19.0	24.0	30.0	26.0	25.0
9	25.0	19.0	9.0	9.0	10.0	12.0	17.0	19.0	24.0	27.0	26.0	25.0
10	23.0	15.0	20.0	10.0	11.0	10.0	18.0	19.0	26.0	28.0	24.0	25.0
11	24.0	15.0	11.0	8.0	11.0	11.0	16.0	20.0	25.0	28.0	27.0	25.0
12	23.0	15.0	10.0	9.0	11.0	12.0	17.0	26.0	25.0	27.0	27.0	25.0
13	20.0	15.0	9.0	7.0	10.0	12.0	17.0	24.0	25.0	27.0	24.0	25.0
14	23.0	16.0	10.0	6.0	10.0	14.0	17.0	24.0	25.0	26.0	25.0	26.0
15	19.0	15.0	10.0	5.0	10.0	15.0	19.0	21.0	25.0	30.0	25.0	24.0
16	20.0	16.0	7.0	5.0	10.0	15.0	17.0	20.0	24.0	30.0	25.0	26.0
17	20.0	14.0	9.0	5.0	11.0	15.0	18.0	20.0	28.0	28.0	25.0	25.0
18	20.0	14.0	3.0	4.0	9.0	16.0	17.0	20.0	25.0	28.0	26.0	24.0
19	20.0	13.0	4.0	4.0	10.0	15.0	19.0	21.0	24.0	30.0	27.0	24.0
20	18.0	13.0	4.0	3.0	10.0	16.0	18.0	24.0	25.0	30.0	27.0	24.0
21	17.0	14.0	3.0	4.0	10.0	16.0	16.0	26.0	25.0	28.0	28.0	23.0
22	20.0	12.0	3.0	5.0	11.0	15.0	19.0	24.0	29.0	30.0	29.0	24.0
23	21.0	10.0	3.0	5.0	10.0	14.0	18.0	25.0	29.0	26.0	28.0	23.0
24	15.0	10.0	2.0	4.0	11.0	14.0	20.0	25.0	30.0	27.0	28.0	25.0
25	16.0	12.0	1.0	5.0	11.0	14.0	19.0	24.0	29.0	26.0	29.0	24.0
26	15.0	11.0	2.0	6.0	9.0	14.0	15.0	25.0	30.0	27.0	30.0	22.0
27	17.0	10.0	5.0	8.0	9.0	12.0	14.0	30.0	29.0	29.0	29.0	20.0
28	16.0	9.0	3.0	9.0	9.0	11.0	19.0	23.0	29.0	28.0	31.0	19.0
29	16.0	9.0	2.0	9.0	9.0	14.0	19.0	23.0	30.0	28.0	29.0	19.0
30	19.0	9.0	3.0	8.0	---	12.0	17.0	24.0	29.0	26.0	28.0	18.0
31	17.0	---	5.0	6.0	---	12.0	---	25.0	---	27.0	29.0	---
MEAN	20.5	15.0	6.5	6.0	10.0	12.5	17.0	22.0	26.0	28.0	27.5	24.0

WTR YR 1984 MEAN 18.0 MAX 31.0 MIN 1.0

08405150 DARK CANYON DRAW AT CARLSBAD, NM

LOCATION.--Lat 32°24'24", long 104°13'34", in NE¼NW¼SE¼ sec.7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on downstream side of U.S. Highway 62-285 (Canal Street) bridge in Carlsbad, and 0.6 mi upstream from mouth. Mouth at Pecos River mile 459.2.

DRAINAGE AREA.--450 mi^2, approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,088.21 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. A Soil Conservation Service flood control project on Hackberry Draw, an upstream tributary, has some effect on flood peaks and flow duration. Ground-water withdrawals above station for irrigation of approximately 2,100 acres, 1973 determination, and for municipal supply for Carlsbad.

AVERAGE DISCHARGE.--11 years, 7.93 ft^3/s, 5,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,000 ft^3/s Sept. 26, 1980, gage height, 12.10 ft from rating curve extended above 7,100 ft^3/s; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft^3/s as determined by slope-area measurement at site 1.2 mi upstream. Another flood of approximately the same magnitude occurred Sept. 20, 1941.

Other major peaks occurred July 17, 1905, July 24, 1908, July 24, 1911, Apr. 18, 1915, Aug. 8, 1916, Sept. 15, 1919, Aug. 4, 1925, and May 23, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s and maximum (*), from rating curve extended above 7,100 ft^3/s:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Aug. 10	2000	*13600	10.56	Aug. 11	1630	4140	7.32

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1530	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2670	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	794	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.5	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	5031.50	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	162	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2670	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	9980	.00

CAL YR 1983 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1984 TOTAL 5031.50 MEAN 13.7 MAX 2670 MIN .00 AC-FT 9980

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD,NM

LOCATION.--Lat 32°24'37", long 104°12'58", in NE¼SW¼NW¼ sec.8, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank, 700 ft downstream from mouth of Dark Canyon Draw, 0.3 mi downstream from Lower Tansill Dam and Bataan recreational area, 0.8 mi downstream from bridge on U.S. Highway 62-180 in Carlsbad, and at mile 459.1.

DRAINAGE AREA.--18,550 mi^2, approximately, contributing area.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,075.19 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by Lake Avalon (station 08403800) since 1891, and by several other reservoirs, and up to Nov. 1982 at low stages by power plant. Power Plant discontinuned operation Nov. 1982. Gage is bypassed on left bank by Carlsbad main canal east which irrigates several hundred acres adjacent to and below gage site, and on right bank by Carlsbad main canal south, which with supplemental ground-water withdrawals irrigates about 23,000 acres below. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres, 1959 determination.

AVERAGE DISCHARGE.--14 years, 46.7 ft^3/s, 33,830 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,200 ft^3/s Sept. 26, 1980, gage height, 14.60 ft, from floodmarks, from rating curve extended above 12,000 ft^3/s: no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a stage of about 22 ft, discharge not determined. (For dates of other historical floods see station 08404000.)

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,300 ft^3/s Aug. 10, gage height, 15.22 ft, from rating curve extended above 3,100 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.37 ft^3/s part of each day Nov. 2, 3 and May 14-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	.47	13	13	16	19	11	9.1	16	21	11	28
2	7.8	.39	16	13	17	18	14	8.7	17	80	11	86
3	6.9	.55	15	13	15	18	8.4	6.9	14	21	10	39
4	7.2	14	15	14	15	18	14	6.5	25	15	8.6	26
5	7.9	15	14	13	15	18	15	6.0	12	15	9.1	25
6	8.7	13	13	14	16	17	12	5.5	11	14	8.7	26
7	7.9	12	13	13	17	17	15	4.0	11	13	7.8	26
8	9.0	12	14	18	17	19	9.9	3.5	10	13	7.2	26
9	9.4	12	14	16	17	19	13	3.3	9.1	13	45	26
10	9.0	12	15	12	17	18	10	3.8	7.2	12	3950	28
11	11	13	13	14	18	17	13	2.8	6.6	12	7410	26
12	10	13	15	14	17	18	9.8	1.5	6.1	40	2480	26
13	9.8	14	13	13	18	17	12	.52	6.9	16	866	28
14	11	14	14	14	19	17	10	.42	13	13	2220	25
15	12	13	15	14	16	17	10	.47	13	14	1640	25
16	12	14	13	15	17	16	10	14	9.7	11	585	23
17	15	14	14	15	20	15	10	43	7.7	12	751	25
18	30	15	14	14	16	17	10	16	9.7	18	80	25
19	41	13	13	13	18	12	9.2	10	35	17	94	23
20	32	14	14	14	16	13	14	8.5	14	11	173	26
21	13	14	14	14	16	13	10	10	13	9.4	160	29
22	7.0	14	12	15	17	14	9.5	9.4	13	11	119	29
23	7.2	13	13	15	17	11	9.4	8.5	14	13	48	25
24	7.6	13	11	15	16	9.9	9.1	10	15	16	33	25
25	12	14	11	14	17	12	9.4	24	13	17	26	25
26	41	15	15	16	20	12	9.2	11	13	12	26	25
27	19	11	16	14	12	18	6.0	10	11	15	25	26
28	7.9	12	13	16	16	5.8	13	10	15	20	28	32
29	15	14	11	16	19	11	13	8.5	12	18	26	30
30	15	13	12	14	---	16	7.7	9.4	14	13	25	26
31	7.6	---	13	15	---	9.8	---	11	---	11	25	---
TOTAL	416.3	361.41	421	443	487	472.5	326.6	276.31	387.0	536.4	20908.4	860
MEAN	13.4	12.0	13.6	14.3	16.8	15.2	10.9	8.91	12.9	17.3	674	28.7
MAX	41	15	16	18	20	19	15	43	35	80	7410	86
MIN	6.4	.39	11	12	12	5.8	6.0	.42	6.1	9.4	7.2	23
AC-FT	826	717	835	879	966	937	648	548	768	1060	41470	1710

CAL YR 1983 TOTAL 4185.56 MEAN 11.5 MAX 145 MIN .10 AC-FT 8300
WTR YR 1984 TOTAL 25895.92 MEAN 70.8 MAX 7410 MIN .39 AC-FT 51360

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples collected at this station for comparison with those collected at 08405000 Pecos River at Carlsbad, N. Mex.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (STAND-ARD UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT							
04...	1500	7.7	4260	8.2	--	24.5	--
NOV							
04...	1700	12	3690	7.7	--	20.0	--
DEC							
05...	1215	16	3490	7.8	--	11.0	--
JAN							
06...	1030	14	3100	8.1	12.0	6.5	11.6
FEB							
06...	1130	15	3930	8.0	14.5	9.0	11.1

08405500 BLACK RIVER ABOVE MALAGA, NM

LOCATION.--Lat 32°13'44", long 104°09'02", in SW¼NW¼SW¼ sec.12, T.24 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on right bank 0.6 mi upstream from Black River diversion dam, 4.6 mi west of Malaga, and 7.1 mi upstream from mouth. Mouth at Pecos River mile 436.3.

DRAINAGE AREA.--343 mi^2.

PERIOD OF RECORD.--March to December 1940, December 1946 to current year.

REVISED RECORDS.--WSP 1632: 1948, 1949-50(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,070 ft, from topographic map. March to December 1940 water-stage recorder and Cippoletti weir at site 0.3 mi downstream at different datum.

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 1,000 acres, 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--37 years (1948-84), 12.9 ft^3/s, 9,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,600 ft^3/s Aug. 23, 1966, gage height, 21.7 ft, from floodmarks, from rating curve extended above 5,900 ft^3/s on basis of slope-area measurements at gage heights 12.60 ft and 21.7 ft; minimum, 0.51 ft^3/s June 1, 1983.
The flood of Aug. 23, 1966, exceeded the previous maximum stage which occurred in 1908 by about 1.0 ft, from information by local resident.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft, present site and datum, determined in 1947 from well defined flood marks, discharge, 33,000 ft^3/s, from rating curve extended above 1,400 ft^3/s on basis of slope-area measurements at gage heights 8.41 ft and 12.60 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
June 28	0845	*2300	5.93	Aug. 11	0315	509	3.27

Minimum discharge, 1.1 ft^3/s Mar. 30, 31, April 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	2.2	11	11	13	2.0	2.8	9.1	2.2	10	6.1	4.9
2	14	2.4	12	11	13	2.0	6.5	8.8	6.6	41	6.1	8.0
3	13	2.4	12	11	13	2.0	6.8	8.9	24	28	6.3	24
4	12	12	12	11	13	2.0	7.2	8.5	65	12	6.2	11
5	8.5	21	11	15	13	2.0	7.5	8.5	22	9.6	6.1	6.2
6	7.6	11	11	6.0	13	2.0	7.6	8.5	10	8.8	6.1	6.1
7	8.3	9.9	11	5.1	13	2.2	7.9	8.5	9.1	8.4	6.1	6.1
8	8.0	9.9	11	5.5	13	3.7	7.9	8.4	8.5	8.1	60	5.8
9	88	9.9	11	5.6	13	2.7	8.0	8.1	8.1	7.7	145	5.8
10	27	9.9	11	8.8	13	6.9	8.0	7.9	7.9	7.4	241	6.0
11	7.3	10	11	11	13	7.5	8.3	7.9	8.5	7.3	235	6.3
12	4.1	10	11	12	12	7.6	8.8	7.7	7.8	7.5	96	6.7
13	2.8	10	11	11	12	8.5	9.5	7.6	7.7	7.4	28	6.4
14	2.2	10	11	11	12	5.7	8.5	7.6	7.6	7.0	15	6.1
15	1.7	10	11	11	12	1.8	8.2	7.6	7.5	6.8	11	6.1
16	1.6	10	11	12	11	1.8	7.9	12	7.5	6.7	6.4	6.1
17	1.5	10	11	17	5.5	1.7	8.0	16	7.7	6.6	4.3	6.1
18	1.4	11	11	12	3.5	1.6	7.8	16	8.0	6.6	3.6	6.0
19	1.7	11	11	12	2.8	1.5	7.6	11	34	6.7	3.3	5.8
20	2.1	11	11	12	2.5	1.6	7.6	9.4	10	6.6	3.0	5.8
21	1.9	11	11	18	2.3	1.5	7.4	8.9	7.6	6.3	2.7	5.7
22	1.6	11	11	12	2.4	1.4	7.8	8.2	9.0	5.9	3.5	5.5
23	1.5	11	11	18	2.3	1.3	8.0	8.3	8.5	6.1	4.5	5.8
24	1.5	11	11	12	2.2	1.2	8.0	8.6	8.2	6.4	4.5	5.9
25	1.4	11	11	13	2.2	1.2	8.1	8.7	8.2	7.1	5.5	5.9
26	1.4	11	12	13	2.1	1.2	7.7	8.3	7.8	7.5	5.5	6.8
27	1.5	11	12	13	2.0	1.3	7.5	7.8	9.1	6.8	5.5	7.0
28	7.3	11	12	13	1.8	1.2	8.6	4.6	327	6.4	5.5	6.9
29	25	11	12	13	2.0	1.2	8.7	2.8	33	6.4	5.5	7.1
30	3.3	11	12	13	---	1.1	8.6	2.0	13	6.4	5.2	7.1
31	2.1	---	11	13	---	1.1	---	1.6	---	6.5	5.2	---
TOTAL	277.3	303.6	349	362.0	235.6	80.5	232.8	257.8	701.1	282.0	947.7	209.0
MEAN	8.95	10.1	11.3	11.7	8.12	2.60	7.76	8.32	23.4	9.10	30.6	6.97
MAX	88	21	12	18	13	8.5	9.5	16	327	41	241	24
MIN	1.4	2.2	11	5.1	1.8	1.1	2.8	1.6	2.2	5.9	2.7	4.9
AC-FT	550	602	692	718	467	160	462	511	1390	559	1880	415

CAL YR 1983 TOTAL 3144.82 MEAN 8.62 MAX 88 MIN .72 AC-FT 6240
WTR YR 1984 TOTAL 4238.40 MEAN 11.6 MAX 327 MIN 1.1 AC-FT 8410

08406500 PECOS RIVER NEAR MALAGA, NM

LOCATION.--Lat 32°12'26", long 104°01'22", in SW¼NW¼NE¼ sec.19, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 3.1 mi southeast of Malaga, 4.3 mi downstream from Black River, and at mile 432.2.

DRAINAGE AREA.--19,190 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1920 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1632: 1925, 1932-37.

GAGE.--Water-stage recorder. Datum of gage is 2,895.64 ft National Geodetic Vertical Datum of 1929. May 1, 1920, to Mar. 24, 1949, at datum 3 ft higher.

REMARKS.--Records good. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres, 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres adjacent to and below gage. This bypass is not gaged.

AVERAGE DISCHARGE.--16 years (1921-36), 274 ft^3/s, 198,500 acre-ft/yr, prior to completion of Lake Sumner. 48 years (1938-84), 168 ft^3/s, 121,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft^3/s Aug. 23, 1966, gage height, 42.1 ft, from floodmarks, from rating curve extended above 36,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 3.7 ft^3/s Oct. 20, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1904, discharge not determined. Flood of Aug. 7, 1916, reached a discharge of 70,000 ft^3/s at Carlsbad, 27 mi upstream. Flood in September 1919 reached a stage of 29.4 ft, present datum, discharge, 40,400 ft^3/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,300 ft^3/s Aug. 11, gage height, 23.94 ft; minimum, 11 ft^3/s May 16 and June 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	69	53	52	39	38	23	14	14	20	15	50
2	57	52	53	52	38	37	31	13	14	21	15	43
3	48	52	54	52	37	39	33	14	13	27	16	65
4	38	65	54	52	31	42	37	13	20	40	15	97
5	35	63	56	49	29	42	33	14	24	28	15	89
6	34	61	55	44	27	42	28	14	17	22	14	81
7	37	54	54	42	26	43	21	15	19	19	14	59
8	52	54	53	42	26	43	18	16	16	19	21	55
9	81	53	53	44	26	43	17	16	14	18	128	59
10	123	52	53	46	25	42	20	14	12	17	268	63
11	71	51	54	46	24	41	19	13	12	15	11200	64
12	48	51	54	46	25	43	19	13	12	14	5650	65
13	38	51	52	42	31	38	20	12	12	14	636	55
14	35	51	46	41	33	36	19	12	12	15	2160	53
15	38	52	45	40	33	36	19	12	12	23	1880	54
16	49	53	51	40	33	36	19	15	12	19	1140	51
17	44	52	54	40	33	35	19	19	14	16	341	66
18	44	52	56	42	28	32	18	23	12	15	590	50
19	33	52	55	41	26	30	17	23	15	13	152	47
20	53	54	54	41	26	29	16	39	31	13	131	45
21	62	53	54	40	24	25	15	33	31	13	175	45
22	57	52	53	40	30	20	17	27	41	13	167	57
23	45	51	52	41	32	19	21	23	32	13	146	60
24	38	52	49	42	34	19	22	25	28	14	100	62
25	44	52	48	42	36	19	21	25	28	17	68	57
26	38	53	48	42	36	19	21	26	27	15	56	64
27	47	53	49	42	38	18	23	28	23	15	51	119
28	57	54	52	42	40	21	24	23	221	17	55	76
29	85	53	57	42	40	23	19	17	107	23	78	82
30	88	52	52	42	---	21	16	16	29	22	68	82
31	76	---	52	41	---	20	---	15	---	16	57	---
TOTAL	1667	1619	1625	1350	906	991	645	582	874	566	25422	1925
MEAN	53.8	54.0	52.4	43.5	31.2	32.0	21.5	18.8	29.1	18.3	820	64.2
MAX	123	69	57	52	40	43	37	39	221	40	11200	119
MIN	33	51	45	40	24	18	15	12	12	13	14	43
AC-FT	3310	3210	3220	2680	1800	1970	1280	1150	1730	1120	50420	3820

CAL YR 1983 TOTAL 13204 MEAN 36.2 MAX 155 MIN 14 AC-FT 26190
WTR YR 1984 TOTAL 38172 MEAN 104 MAX 11200 MIN 12 AC-FT 75710

08406500 PECOS RIVER NEAR MALACA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2.5 mi upstream from discharge station.

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: February 1959 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,100 microsiemens June 7, 1966; minimum daily, 402 microsiemens Aug. 12, 1984.
WATER TEMPERATURES: Maximum daily, 34.0°C June 25, 1964; minimum daily, 2.0°C Dec. 25, 26, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 10,100 microsiemens Jan. 17; minimum daily, 402 microsiemens Aug. 12.
WATER TEMPERATURES: Maximum daily, 32.0°C June 26, 27; minimum daily, 2.0°C Dec. 25, 26.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT											
06...	1045	33	6000	6010	8.2	7.8	26.5	23.0	--	2000	1900
27...	1015	47	7000	6690	8.0	7.8	18.5	16.0	9.5	2200	2000
DEC											
02...	1045	54	6300	5950	8.2	7.7	17.0	10.0	10.9	1900	1800
JAN											
05...	1100	49	7000	5870	8.2	7.5	13.5	7.5	14.1	1900	1700
31...	1100	43	6300	6590	8.6	7.4	12.5	8.5	<20.0	2000	1900
FEB											
28...	1000	40	6500	6950	8.3	7.6	8.5	9.5	11.8	2000	1900
APR											
04...	1030	36	8100	8010	8.4	7.6	14.0	16.5	12.6	2300	2200
25...	1200	22	8800	9070	8.1	7.5	27.5	20.5	9.4	2400	2200
JUN											
04...	1300	15	8600	8580	8.2	7.8	28.5	24.5	12.6	2400	2300
29...	1400	76	3050	3210	7.5	7.6	34.5	26.0	5.8	1200	1200
AUG											
02...	1000	15	8400	8270	7.8	7.6	29.0	28.0	8.0	2400	2300
31...	1100	59	4690	4700	8.4	7.5	28.0	28.0	10.0	1300	1200

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT										
06...	520	170	750	8	15	150	.000	1500	1300	.80
27...	540	200	870	8	14	--	--	1600	1600	.90
DEC										
02...	480	180	690	7	12	--	--	1600	1300	.80
JAN										
05...	480	170	670	7	10	--	--	1600	1200	.80
31...	470	200	800	8	11	--	--	1600	1400	.80
FEB										
28...	470	200	870	9	13	--	--	1500	1600	.90
APR										
04...	560	220	1100	10	20	--	--	1800	1900	1.1
25...	580	220	1100	10	25	--	--	2100	2200	.90
JUN										
04...	600	230	1100	10	23	--	--	2000	2000	.90
29...	380	72	250	3	6.7	--	--	1100	460	.50
AUG										
02...	610	220	970	9	19	--	--	1900	1900	1.1
31...	350	110	590	7	15	--	--	1000	950	.60

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT										
06...	19	4300	1.4	1.4	.170	--	1.7	3.3	.030	.010
27...	16	4900	2.3	2.3	.120	--	1.8	4.2	.120	.040
DEC										
02...	10	4400	1.7	1.6	.130	--	1.7	3.5	.030	<.010
JAN										
05...	13	4300	2.3	2.4	.070	--	.73	3.1	.010	.010
31...	2.8	4500	.10	.13	.120	--	3.5	3.7	.170	.010
FEB										
28...	6.5	4700	1.2	1.2	.190	.150	1.8	3.2	.090	.130
APR										
04...	11	5700	1.5	1.5	.070	--	1.4	3.0	.070	.030
25...	8.6	6300	1.6	1.5	.090	--	.31	2.0	.060	.020
JUN										
04...	9.8	6000	.50	.47	.040	--	2.7	3.2	.090	<.010
29...	16	2300	1.7	.79	.440	--	1.3	3.4	.060	.020
AUG										
02...	19	5700	1.0	1.0	.400	--	1.3	2.7	.480	<.010
31...	14	3100	.70	.68	.160	--	1.2	2.1	.070	<.010

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT			
06...	1045	370	50
27...	1015	430	90
DEC			
02...	1045	360	80
JAN			
05...	1100	340	50
31...	1100	380	60
FEB			
28...	1000	420	110
APR			
04...	1030	470	50
25...	1200	540	80
JUN			
04...	1300	550	50
29...	1400	170	40
AUG			
02...	1000	520	70
31...	1100	290	60

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6010	5470	6290	5870	6620	6280	7780	8450	8370	6530	7690	4880
2	6370	6310	6010	5950	6560	6730	7950	8620	8390	7540	7930	5110
3	6280	7010	6050	5970	---	6740	7660	8780	8590	7730	8300	5120
4	5860	6060	6110	5760	6620	6580	7390	8980	8440	7310	8330	4250
5	6460	6570	6210	6070	6870	6580	7450	9200	7860	7220	8650	4270
6	6510	6450	6100	6360	7060	6460	7500	9440	7720	7490	8640	4220
7	7600	6560	6020	6490	7130	6430	7720	9460	8110	7760	8800	4600
8	7930	6460	6110	6520	7190	6420	7720	9350	8110	7950	8720	4900
9	6160	6450	6050	6640	7080	6420	8020	9040	8150	8140	4170	4980
10	3750	---	6160	6680	7280	6400	8140	8910	8270	8390	2360	5010
11	4920	6480	6050	6690	7420	6430	8470	9000	8390	8410	572	5080
12	7050	6510	6160	6690	7340	6370	8140	9040	8680	8430	402	5180
13	7180	6500	5900	6650	7350	6330	8020	9000	8840	8580	960	5150
14	6870	6520	5830	6620	7070	6530	7940	9290	8950	8780	769	5190
15	6150	6500	6260	6620	7120	6530	8020	9370	8970	8760	835	5360
16	5790	6370	6120	6680	7150	6510	8020	9250	9100	8350	1090	5370
17	4810	6250	5970	10100	7210	6510	8080	8820	9000	8390	1900	4990
18	5570	6380	6020	6630	7210	6600	8270	8850	9070	8560	1480	5130
19	5980	6460	6480	6570	7370	6660	8400	8560	8840	8670	2570	5460
20	7440	6410	6160	6620	7360	6770	8470	8420	8200	8940	2870	5640
21	6180	6260	5760	6670	7350	6960	8540	7910	7340	9090	2500	5690
22	7370	6250	5920	6610	7430	7050	8540	8070	7380	9130	2430	5490
23	---	6250	5730	6650	7130	7390	8680	8030	7570	9310	2880	4920
24	---	6290	5850	6590	6960	7620	8610	8090	7690	9440	3300	5070
25	7080	6240	6060	6580	7050	7750	8140	7930	7560	9340	3880	4970
26	6890	6320	6000	6540	7010	7830	8200	7860	7520	9230	4410	5930
27	6210	---	5840	6520	6910	7880	7890	7780	7940	9180	4460	4160
28	5700	6280	5710	6470	6750	8000	7890	7770	2050	8780	4650	5270
29	6710	6210	6030	6460	6720	7970	8140	7940	3560	8800	4560	5080
30	5470	6070	5830	6460	---	8030	8330	8090	5160	7770	4270	5040
31	5410	---	5770	6470	---	7930	---	8200	---	8010	4480	---
MEAN	6270	6350	6020	6590	7080	6930	8070	8630	7790	8390	4160	5050

WTR YR 1984 MEAN 6780 MAX 10100 MIN 402

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.5	18.0	9.0	5.5	8.5	12.0	14.5	22.0	25.5	27.5	27.5	25.0
2	25.0	19.0	10.0	6.5	10.0	11.5	15.0	19.0	23.5	29.0	30.0	26.5
3	23.0	19.0	11.0	7.0	9.0	11.5	15.0	24.0	22.0	27.0	25.0	25.0
4	23.0	19.5	11.0	7.5	9.0	13.0	17.0	26.5	26.0	28.0	28.5	25.0
5	23.0	20.0	11.0	7.5	9.0	11.5	16.0	20.0	23.0	28.0	28.5	25.0
6	23.0	18.0	9.5	8.0	9.0	9.0	17.0	20.0	28.0	31.0	29.0	23.0
7	23.0	18.0	8.5	8.0	9.0	10.5	17.0	26.0	29.0	31.0	27.0	23.5
8	22.0	17.5	9.0	9.0	10.0	11.0	16.5	24.5	29.5	27.0	26.0	23.0
9	22.0	18.0	9.0	9.0	9.0	11.0	21.0	24.5	24.0	31.0	24.5	23.5
10	22.0	---	10.0	8.5	10.0	11.5	15.5	21.0	27.0	26.0	23.0	27.5
11	21.0	14.0	10.0	7.5	10.0	10.5	21.0	22.0	29.0	29.5	22.0	25.0
12	20.0	15.0	9.5	8.0	9.0	12.0	16.5	22.0	27.5	28.0	23.0	28.0
13	19.0	15.0	9.5	8.0	8.0	13.0	17.0	21.0	24.0	26.5	23.5	28.0
14	18.0	15.5	9.0	7.0	9.0	14.0	18.0	22.5	26.0	30.0	27.0	25.0
15	19.0	15.0	8.0	6.0	10.0	14.5	18.0	21.5	26.0	27.0	25.0	23.5
16	19.0	13.5	9.0	5.0	9.0	15.5	16.0	21.0	25.0	28.0	25.0	22.5
17	20.0	14.0	7.5	6.0	12.0	16.0	17.0	20.5	25.5	25.0	27.0	22.5
18	20.0	15.0	7.0	5.5	10.0	16.0	17.0	24.5	24.5	27.0	26.0	22.5
19	19.0	13.0	4.5	4.0	10.0	14.0	17.5	22.5	24.0	30.0	26.0	23.0
20	16.0	12.0	4.0	3.5	10.0	15.0	18.5	23.0	24.5	27.0	30.0	24.0
21	16.0	12.0	4.0	4.0	8.5	17.0	16.0	24.0	25.0	27.5	29.0	23.5
22	17.0	13.0	2.5	5.0	9.5	15.5	15.5	25.5	27.0	27.0	28.0	24.0
23	17.0	11.0	2.5	5.0	10.0	14.0	20.0	25.0	27.5	29.5	27.0	22.5
24	17.0	10.0	3.0	6.0	11.0	14.0	18.5	25.0	27.5	25.0	26.0	22.0
25	16.5	10.0	2.0	5.0	11.0	15.0	20.0	25.0	31.0	28.0	26.5	22.5
26	16.0	11.0	2.0	6.5	10.0	14.5	19.5	25.5	32.0	25.0	27.0	19.0
27	16.0	10.0	6.0	7.0	8.5	13.0	18.0	25.5	32.0	25.0	27.0	18.0
28	17.0	8.0	5.5	7.5	9.0	13.0	18.5	24.0	28.0	25.0	29.5	19.0
29	17.0	10.5	3.5	9.0	9.0	13.0	15.0	26.0	25.0	25.5	28.0	---
30	18.0	8.5	3.0	10.0	---	13.5	20.0	26.0	30.0	29.0	27.5	15.5
31	18.0	---	3.5	8.0	---	15.0	---	24.5	---	27.0	27.0	---
MEAN	19.5	14.0	7.0	7.0	9.5	13.0	17.5	23.5	26.5	27.5	26.5	23.5

WTR YR 1984 MEAN 18.0 MAX 32.0 MIN 2.0

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¼SW¼NW¼ sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft upstream from Pierce Canyon Crossing, and 6.0 mi southeast of Malaga, and at mile 425.7.

DRAINAGE AREA.--19,260 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.

REVISED RECORDS.--WSP 898: 1938(M). WSP 1712: 1959.

GAGE.--Water-stage recorder. Datum of gage is 2,889.18 ft National Geodetic Vertical Datum of 1929. July 1938 to September 1941 at datum 1.19 ft higher.

REMARKS.--Records good except those above 300 ft^3/s, which are fair. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres, 1959 determination.

AVERAGE DISCHARGE.--36 years (1939-41, 1952-84), 130 ft^3/s, 94,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge determined, 65,000 ft^3/s Aug. 23, 1966; maximum gage height, 31.6 ft Aug. 23, 1966, from floodmarks; minimum discharge, 0.54 ft^3/s May 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18,300 ft^3/s Aug. 11, gage height, 18.12 ft, from rating curve extended above 170 ft^3/s on basis of runoff comparisons with nearby stations; minimum, 7.8 ft^3/s Apr. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	81	47	50	40	37	21	15	20	35	23	60
2	75	62	48	50	39	35	20	12	18	28	22	52
3	61	50	49	52	38	34	29	12	16	28	22	54
4	45	63	49	52	35	40	33	14	20	44	20	99
5	39	62	50	51	30	42	34	12	34	44	18	96
6	32	62	49	44	27	41	30	11	29	32	18	95
7	32	52	49	40	26	40	26	12	23	26	17	75
8	38	51	48	41	28	40	21	13	22	23	19	62
9	59	50	48	42	31	42	17	14	21	21	114	57
10	129	47	49	44	27	43	16	15	20	19	305	68
11	90	47	48	46	26	39	19	13	18	18	9980	68
12	52	47	49	45	24	40	18	12	16	17	6370	69
13	39	46	48	42	27	39	19	11	13	16	1290	71
14	32	46	44	40	32	36	19	11	11	15	1720	63
15	35	46	41	40	32	36	18	10	11	16	2090	59
16	41	48	43	40	33	37	19	16	13	22	1320	54
17	51	47	48	41	34	37	18	22	16	21	433	63
18	50	47	51	43	32	34	17	34	16	17	608	63
19	47	46	50	43	27	31	12	32	21	15	239	53
20	45	48	50	42	26	30	10	34	29	13	160	52
21	72	48	50	42	27	29	15	41	36	12	218	52
22	66	46	49	42	29	22	15	35	39	13	227	50
23	50	46	49	42	33	19	18	30	39	15	200	67
24	41	46	50	44	34	19	22	29	33	15	140	61
25	46	47	48	44	35	20	21	29	30	15	93	67
26	43	47	49	43	39	19	21	30	31	18	70	53
27	49	46	52	43	36	18	22	32	29	17	66	114
28	59	47	51	43	36	18	25	38	123	16	59	98
29	79	47	54	44	38	18	24	29	317	18	82	87
30	101	46	52	43	---	22	18	22	64	25	81	91
31	90	---	49	42	---	26	---	20	---	24	71	---
TOTAL	1761	1514	1511	1360	921	983	617	666	1128	658	26095	2073
MEAN	56.8	50.5	48.7	43.9	31.8	31.7	20.6	21.5	37.6	21.2	842	69.1
MAX	129	81	54	52	40	43	34	41	317	44	9980	114
MIN	32	46	41	40	24	18	10	10	11	12	17	50
AC-FT	3490	3000	3000	2700	1830	1950	1220	1320	2240	1310	51760	4110

CAL YR 1983 TOTAL 13098 MEAN 35.9 MAX 162 MIN 11 AC-FT 25980
WTR YR 1984 TOTAL 39287 MEAN 107 MAX 9980 MIN 10 AC-FT 77930

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.2 mi downstream from discharge station.

PERIOD OF RECORD.--Water years 1938-41, 1952 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1938 to September 1941, October 1951 to current year.
WATER TEMPERATURES: October 1952 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 66,000 microsiemens Aug. 1, 2, 1966; minimum daily, 433 microsiemens Sept. 21, 1941.
WATER TEMPERATURES: Maximum daily, 35.0°C July 6, 1968; minimum daily, 1.0°C Dec. 25, 1983.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 23,100 microsiemens May 10; minimum daily, 484 microsiemens Aug. 12.
WATER TEMPERATURES: Maximum daily, 32.0°C June 26, 27; minimum daily, 0.5°C Dec. 25, 26.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT												
06...	1430	31	10000	9910	8.3	7.7	31.5	25.5	--	2300	2200	540
27...	1345	53	10500	9860	8.2	7.7	19.5	16.5	12.2	2100	2000	510
DEC												
02...	1500	48	9300	8460	8.0	7.6	19.5	9.5	11.1	2300	2100	540
JAN												
05...	1345	53	11000	8920	8.2	7.7	20.0	7.5	15.7	2100	2000	500
31...	1400	42	13000	10200	8.4	7.4	14.0	9.5	16.8	2200	2100	510
FEB												
28...	1230	36	12500	12400	8.0	7.3	11.5	10.0	9.3	2500	2300	570
APR												
04...	1315	32	14800	14100	8.4	7.5	19.5	17.5	13.5	2600	2400	580
25...	1500	21	19300	18700	8.4	7.3	31.5	21.5	10.2	2600	2500	580
JUN												
04...	1000	20	16200	15700	8.1	7.5	25.0	23.0	7.9	2800	2700	630
JUL												
05...	1000	43	9100	9400	8.2	7.5	29.0	28.0	10.4	1700	1600	420
AUG												
02...	1300	21	15300	15600	8.4	7.4	34.5	28.0	12.3	2800	2700	650
31...	1400	74	8000	8310	8.4	7.2	33.0	28.0	12.4	1500	1400	360

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT											
06...	220	1600	15	43	130	.000	1900	2700	.90	19	7100
27...	210	1600	16	67	--	--	1900	2700	.80	16	7100
DEC											
02...	220	1500	14	35	--	--	1700	2300	.80	10	6400
JAN											
05...	210	1400	14	36	--	--	1700	2400	.70	12	6300
31...	220	1600	15	42	--	--	1900	2500	.80	2.7	6800
FEB											
28...	250	2100	19	52	--	--	1900	3600	.90	8.9	8600
APR											
04...	270	2400	21	75	--	--	2100	4100	1.0	9.3	9600
25...	290	3200	28	110	--	--	2400	5500	.90	2.9	12000
JUN											
04...	300	2700	23	81	--	--	2200	4600	.90	7.0	11000
JUL											
05...	150	1700	19	45	--	--	1500	2500	.60	4.0	6400
AUG											
02...	290	2600	22	79	--	--	2400	4500	1.0	17	11000
31...	150	1300	15	44	--	--	1200	2200	.10	14	5300

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT			
06...	1430	610	70
27...	1345	610	90
DEC			
02...	1500	470	110
JAN			
05...	1345	470	70
31...	1400	550	6
FEB			
28...	1230	680	90
APR			
04...	1315	830	60
25...	1500	1000	130
JUN			
04...	1000	770	90
JUL			
05...	1000	510	60
AUG			
02...	1300	950	70
31...	1400	490	10

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13000		9420				15200	17000	14600	6510	16200	8460
2	11600		9400				15600	17500	15700	8530	15800	8560
3	10100						15300	17400	16100	9310	15600	9050
4	9520						15100	18600		10900	15300	9970
5	9760							19900		9770	15200	8400
6	10100							20700		11200	15500	7560
7	10500							21200		12500	15700	7440
8	10700							22000	15200	12900	16300	7400
9	10500							22800	15500	13400	15700	7910
10	10400							23100	15900	13800	9720	8590
11												
12		9700						22700	16800	14300	873	8510
13		9720				10600		21500	17200	14800	484	8550
14		9940						21400	17200	15400	715	8470
15		10100				11100		21200	17300	16900	2610	8370
16		9840				11300		21200	17700	16800	858	8570
17		9740				11600		21300	18500	16700	990	9120
18		9790				11500		22000	18900		1720	8960
19		9840				12900		20500	19900		1620	9210
20		10000				13300		18500	19100		2320	8830
21		9490				12700		18900	17300		4330	9160
22		9540				12300		15700	15400	15900	5480	9140
23		9720				13000		14400	13700	16600	4400	9690
24		9490				14700		14300	13700	19000	4090	9760
25		9470				15800		14200	13600	18500	4380	9440
26		9590				15800	18600	14500	13500	18300	5310	9320
27		6250				15900	18700	15300	13700	18000	6600	8580
28		9450				16300	19300	14700	13100	17500	7520	9220
29		9140				19700	18200	14300	13800	17500	8310	8700
30		9200			---	18100	16900	13700	7890	16900	8800	7060
31		---			---	17000	---	13600	4990	17100	8310	7160
MEAN								13700	---	17100	8310	---

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	7980	7320	7580	---	---	---	8730	8580	8650
2	---	---	---	7500	7300	7410	---	---	---	8840	8730	8780
3	---	---	---	7800	7340	7540	9400	9280	9320	8780	8600	8670
4	---	---	---	8130	7760	8000	9470	9370	9430	8990	8710	8890
5	---	---	---	8330	7870	7990	9590	9330	9450	9120	8920	9050
6	---	---	---	8880	8330	8740	9520	9220	9350	9110	8790	8910
7	---	---	---	8820	8360	8540	9220	8980	9130	9390	9150	9260
8	---	---	---	8650	8360	8490	9250	9090	9190	9340	9180	9280
9	---	---	---	8750	8560	8640	9400	9200	9310	9710	9380	9510
10	---	---	---	9090	8440	8600	9530	9300	9400	10600	9660	10200
11	9520	7530	8400	10100	---	9800	10100	9420	9740	10200	9610	9870
12	7590	6480	6790	---	---	---	9540	8010	9330	10100	9730	9870
13	7340	6710	7010	---	---	---	9660	9270	9430	10300	9840	10000
14	8060	7350	7660	---	---	---	9390	9150	9270	10500	10100	10400
15	9140	8120	8570	---	---	---	9340	9140	9220	10400	10200	10200
16	9930	9180	9540	---	---	---	9710	9410	9560	10300	10000	10100
17	10400	9960	10200	---	---	---	9680	9130	9380	10600	10100	10300
18	10000	9040	9530	---	---	---	9190	9000	9080	10700	10200	10400
19	9140	8740	9020	---	---	---	9300	8860	9060	10600	10100	10300
20	9180	8630	8780	---	---	---	9000	8890	8950	10500	10300	10300
21	9410	7890	8640	---	---	---	9040	8880	8960	10800	10200	10400
22	8560	7990	8230	---	---	---	8960	8930	8950	10500	10200	10400
23	8710	8400	8590	---	---	---	8960	8900	8930	10400	10100	10300
24	8820	8490	8620	---	---	---	8910	8740	8790	10600	10100	10400
25	9890	8870	9330	---	---	---	8790	8600	8680	10900	10300	10600
26	10300	9790	10000	---	---	---	8860	8610	8760	10600	10200	10500
27	10000	9860	9890	---	---	---	8750	8540	8650	10800	10500	10600
28	10200	9720	---	---	---	---	9720	8780	9410	10700	10300	10500
29	9750	8900	9300	---	---	---	9160	8490	8800	10800	10300	10500
30	8920	7980	8420	10800	9700	10200	8510	8400	8450	10400	10300	10300
31	8270	8080	8160	---	---	---	8570	8490	8540	10500	10100	10400
MONTH	10400	6480	8730	10800	7300	8460	10100	8010	9120	10900	8580	9930

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	10500	10200	10400	11500	10900	11200	---	---	---			
2	10700	10400	10500	11200	10900	11000	---	---	---			
3	10900	10500	10700	11200	10900	11100	---	---	---			
4	10800	10500	10600	11900	11300	11500	---	---	---			
5	10900	10600	10800	12000	11300	11600	15000	14600	14800			
6	11400	11000	11200	11300	10600	10900	14700	13800	14200			
7	12000	11500	11700	10600	10300	10500	13900	13800	13900			
8	12500	12100	12300	11400	10400	10700	14300	13900	14000			
9	12600	12200	12400	11700	10900	11300	15000	14200	14600			
10	12400	11900	12100	11300	10700	10900	15800	14900	15100			
11	12200	11900	12000	11400	10500	10900	17200	16100	16800			
12	13700	12400	13200	10600	10300	10400	18700	17300	18000			
13	13900	13200	13600	10400	---	10300	18700	18300	18500			
14	13300	12500	12800	---	---	---	18300	18100	18200			
15	13000	12600	12700	---	---	---	18200	17400	17900			
16	13200	12600	12900	---	---	---	17800	17600	17700			
17	12700	11800	12200	---	---	---	18000	17800	17900			
18	13100	12000	12400	---	---	---	18000	17900	18000			
19	12900	12000	12500	---	---	---	19000	---	18000			
20	12000	11600	11800	---	---	---	19300	18900	19100			
21	12100	11800	12000	---	---	---	19900	19100	19300			
22	12300	11800	12000	---	---	---	20700	---	19100			
23	12300	11800	12000	---	---	---	21300	---	20500			
24	12500	12100	12300	---	---	---	21200	---	21000			
25	12100	11700	11900	---	---	---	19700	---	18800			
26	12800	12100	12400	---	---	---	---	---	---			
27	13400	12700	13200	---	---	---	---	---	---			
28	12900	11900	12500	---	---	---	---	---	---			
29	11600	11400	11500	---	---	---	---	---	---			
30	---	---	---	---	---	---	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	13900	10200	12000	12000	10300	10900	21300	13800	17400			

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---						
2	---	---	---	---	---	---						
3	---	---	---	---	---	---						
4	16900	16200	16600	---	---	---						
5	17900	17000	17400	---	---	---						
6	17300	14600	15300	---	---	---						
7	14700	14500	14600	---	---	---						
8	---	---	---	---	---	---						
9	---	---	---	---	---	---						
10	---	---	---	---	---	---						
11	---	---	---	---	---	---						
12	---	---	---	---	---	---						
13	---	---	---	---	---	---						
14	---	---	---	---	---	---						
15	---	---	---	---	---	---						
16	---	---	---	---	---	---						
17	---	---	---	16800	---	16800						
18	---	---	---	16600	15400	15700						
19	---	---	---	15300	14900	15100						
20	---	---	---	15600	15000	15200						
21	---	---	---	---	---	---						
22	---	---	---	---	---	---						
23	---	---	---	---	---	---						
24	---	---	---	---	---	---						
25	---	---	---	---	---	---						
26	---	---	---	---	---	---						
27	---	---	---	---	---	---						
28	---	---	---	---	---	---						
29	---	---	---	---	---	---						
30	---	---	---	---	---	---						
31	---	---	---	---	---	---						
MONTH	17900	14500	16000	16800	14900	15700						
YEAR	21300	6480	11200									

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0						14.5	21.0	25.5	29.0		26.5
2	26.0						15.0	19.0	24.0	29.0		27.0
3	24.0						15.0	22.0	23.0	27.5	26.0	26.5
4	23.5						16.0	25.0		27.0	26.0	25.0
5	24.0							20.0		28.0	27.0	24.0
6								20.0		29.0	28.0	24.0
7								21.0		29.5	27.0	23.0
8								21.0	29.0	29.0	27.5	23.5
9								23.0	25.0	28.5	25.5	24.0
10								21.0	27.0	27.0	24.0	27.0
11								22.5	28.0	28.0	22.5	27.0
12								26.0	26.0	27.0	23.0	27.5
13								22.0	25.5	27.0	23.5	27.0
14						15.0		23.5	25.0	27.5	24.0	26.0
15						15.5		22.5	25.0	27.5	25.0	24.0
16						16.0		22.0	26.0	27.0	25.0	23.0
17						17.0		22.0	26.0		27.0	23.0
18						17.0		23.5	24.5		26.0	---
19						15.0		22.5	24.0		26.0	---
20						15.0		24.0	24.5		29.5	---
21						17.0		25.0	26.0		30.0	---
22						16.5		25.5	28.0		29.0	---
23						15.0		26.0	29.0		27.5	---
24						14.5		26.0	29.0		27.0	---
25						15.0		26.0	30.5		27.0	---
26						15.0	19.5	26.5	32.0		27.5	---
27						13.5	18.0	27.0	32.0		27.5	---
28						13.0	18.0	25.0	30.0		30.0	---
29						14.0	16.0	25.0	28.0		28.5	---
30					---	13.0	18.0	24.0	30.0		28.5	---
31		---			---	15.0	---	24.0	---		27.5	---
MEAN								23.5				25.0

BEST COPY AVAILABLE

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	---	---	---	20.0	18.0	19.0	9.0	8.0	8.5	5.0	3.0	4.0
2	---	---	---	20.0	18.5	19.0	10.0	8.5	9.0	5.0	4.5	4.5
3	---	---	---	20.0	19.0	19.5	12.0	10.0	10.5	6.0	4.5	5.5
4	---	---	---	21.0	19.5	20.0	12.5	10.5	11.5	7.0	5.5	6.5
5	---	---	---	20.5	19.5	20.0	12.0	10.5	11.5	7.5	6.0	6.5
6	26.5	25.0	26.0	19.5	18.5	19.0	11.0	9.5	10.5	8.0	6.5	7.0
7	27.5	24.0	25.0	19.5	18.0	18.5	10.0	8.5	9.5	9.0	7.0	8.0
8	25.5	23.5	24.0	20.5	18.0	19.0	9.5	8.5	9.0	8.0	7.5	8.0
9	24.0	23.0	23.5	18.5	17.0	18.0	10.0	8.5	9.5	8.5	7.5	8.0
10	23.5	22.0	23.0	17.0	15.5	16.0	10.0	9.0	9.5	9.5	7.5	8.0
11	24.0	22.0	23.0	16.0	14.5	15.0	10.5	9.0	9.5	8.0	6.0	7.0
12	23.5	20.5	21.5	16.5	14.5	15.5	10.5	8.5	9.5	8.0	6.5	7.0
13	22.5	20.0	21.0	17.0	15.0	16.0	9.5	9.0	9.0	7.0	6.5	7.0
14	21.5	19.0	20.5	17.0	15.5	16.0	9.5	8.0	8.5	6.5	5.0	6.0
15	22.0	19.5	20.5	16.5	15.0	15.5	9.0	7.5	8.5	5.0	4.0	4.5
16	22.5	20.0	21.0	15.5	14.0	15.0	8.0	7.0	7.5	4.5	3.5	4.0
17	21.5	20.5	21.0	16.5	14.0	15.0	8.0	6.0	7.0	4.5	4.0	4.5
18	21.0	20.0	20.5	15.0	14.0	14.5	7.5	6.0	6.5	5.0	3.5	4.0
19	20.0	18.5	19.5	14.0	12.5	13.5	5.5	3.5	4.5	3.5	2.0	2.5
20	18.0	16.0	17.0	13.0	11.5	12.5	4.0	3.0	3.5	2.0	1.0	2.0
21	18.5	15.0	16.5	13.5	11.5	12.5	4.0	3.5	4.0	3.5	1.5	2.5
22	19.5	16.0	18.0	13.0	11.5	12.5	3.5	2.0	2.5	5.0	2.5	4.0
23	20.0	17.0	18.5	11.5	10.0	11.0	2.5	1.0	2.0	8.0	4.0	5.5
24	19.0	17.5	18.5	10.5	9.0	10.0	2.0	1.0	1.5	8.0	5.0	6.0
25	19.0	16.5	17.5	11.0	9.0	10.0	1.0	.5	1.0	8.0	5.5	6.5
26	17.0	16.0	16.0	10.5	9.5	10.0	1.5	.5	1.0	9.0	6.5	7.5
27	17.0	15.5	16.5	9.5	8.5	9.0	4.5	1.5	3.0	10.0	7.0	8.0
28	18.0	16.5	17.5	9.0	7.5	8.5	4.5	3.0	4.0	10.5	8.0	9.0
29	19.5	17.5	18.0	9.5	7.5	8.5	3.0	2.0	2.5	11.0	8.0	9.5
30	19.0	18.0	18.5	9.0	8.0	8.5	3.0	1.5	2.0	9.5	9.0	9.5
31	19.5	18.0	18.5	---	---	---	4.0	2.0	3.0	9.5	8.0	9.0
MONTH	27.5	15.0	20.0	21.0	7.5	14.5	12.5	.5	6.5	11.0	1.0	6.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	11.0	8.5	9.5	13.0	9.0	10.5	---	---	---			
2	11.5	9.5	10.5	14.0	10.5	12.0	---	---	---			
3	12.0	9.5	10.5	15.5	12.0	13.0	---	---	---			
4	10.5	9.5	10.0	15.5	12.5	13.5	---	---	---			
5	12.0	9.5	10.0	13.0	10.5	11.5	18.0	16.5	17.0			
6	11.5	9.0	10.0	11.5	9.5	10.5	18.0	15.5	16.5			
7	12.0	9.5	10.5	13.0	9.0	11.0	18.0	16.0	17.0			
8	12.0	10.0	11.0	13.0	10.5	11.5	21.0	15.5	18.0			
9	13.0	9.5	11.0	14.0	11.0	12.5	19.5	17.0	18.0			
10	12.0	10.0	11.0	13.5	11.5	12.5	19.5	16.0	17.5			
11	12.0	10.5	11.0	13.0	10.5	12.0	19.5	16.5	18.0			
12	12.5	10.0	11.0	16.5	12.0	13.5	19.5	16.5	17.5			
13	12.0	9.0	10.5	15.5	13.5	14.0	23.0	17.0	20.0			
14	12.5	9.5	11.0	---	---	---	21.5	18.0	20.0			
15	12.5	10.5	11.5	---	---	---	23.0	18.0	20.0			
16	12.0	10.0	11.0	---	---	---	23.0	17.5	20.0			
17	12.5	10.5	11.5	---	---	---	22.0	17.5	20.0			
18	12.0	10.0	11.0	---	---	---	20.0	18.5	19.0			
19	11.0	10.0	10.5	---	---	---	22.5	17.5	19.5			
20	10.5	9.5	10.0	---	---	---	20.0	17.0	18.5			
21	11.5	8.0	9.5	---	---	---	20.0	16.0	18.0			
22	11.0	8.5	9.5	---	---	---	21.0	15.5	18.5			
23	12.0	10.0	11.0	---	---	---	21.0	16.5	18.5			
24	14.0	10.5	12.0	---	---	---	23.5	18.0	20.5			
25	13.0	11.0	12.0	---	---	---	21.5	19.0	20.0			
26	11.5	9.5	10.5	---	---	---	---	---	---			
27	9.5	8.0	9.0	---	---	---	---	---	---			
28	10.0	7.5	9.0	---	---	---	---	---	---			
29	10.5	8.5	9.5	---	---	---	---	---	---			
30	---	---	---	---	---	---	---	---	---			
31	---	---	---	---	---	---	---	---	---			
MONTH	14.0	7.5	10.5	16.5	9.0	12.0	23.5	15.5	18.5			

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	---	---	---	---	---	---	27.5	26.5	27.0			
2	---	---	---	---	---	---	29.5	26.0	27.0			
3	---	---	---	---	---	---	---	---	---			
4	26.0	23.0	25.0	---	---	---	---	---	---			
5	26.5	23.5	25.0	---	---	---	---	---	---			
6	29.0	23.5	26.0	---	---	---	---	---	---			
7	26.0	24.5	25.0	---	---	---	---	---	---			
8	---	---	---	---	---	---	---	---	---			
9	---	---	---	---	---	---	---	---	---			
10	---	---	---	---	---	---	---	---	---			
11	---	---	---	---	---	---	---	---	---			
12	---	---	---	---	---	---	---	---	---			
13	---	---	---	---	---	---	---	---	---			
14	---	---	---	---	---	---	---	---	---			
15	---	---	---	---	---	---	---	---	---			
16	---	---	---	---	---	---	---	---	---			
17	---	---	---	30.0	28.5	29.0	---	---	---			
18	---	---	---	28.5	27.0	28.0	---	---	---			
19	---	---	---	29.0	26.5	27.5	---	---	---			
20	---	---	---	29.0	26.0	27.5	---	---	---			
21	---	---	---	28.5	26.0	27.5	---	---	---			
22	---	---	---	28.5	26.5	27.5	---	---	---			
23	---	---	---	28.5	26.5	28.0	---	---	---			
24	---	---	---	29.5	27.0	28.0	---	---	---			
25	---	---	---	29.5	27.0	28.0	---	---	---			
26	---	---	---	30.0	26.0	27.5	---	---	---			
27	---	---	---	30.0	26.5	27.5	---	---	---			
28	---	---	---	29.0	26.5	28.0	---	---	---			
29	---	---	---	30.0	27.0	28.0	---	---	---			
30	---	---	---	29.0	27.0	27.5	---	---	---			
31	---	---	---	28.5	27.0	28.0	---	---	---			
MONTH	29.0	23.0	25.5	30.0	26.0	28.0	29.5	26.0	27.0			
YEAR	30.0	.5	14.0									

08407500 PECOS RIVER AT RED BLUFF, NM
(National stream-quality accounting network station)

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¼NW¼NE¼ sec.1, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13060011, on right bank at Red Bluff, 0.2 mi downstream from Red Bluff Draw, 1.6 mi northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 mi north of the New Mexico-Texas state line, 5.5 mi upstream from Delaware River, and at mile 411.2.

DRAINAGE AREA.--19,540 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,850.05 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow regulated by many reservoirs and diversion dams. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres, 1959 determination.

AVERAGE DISCHARGE.--47 years (1938-84), 163 ft^3/s, 118,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111,000 ft^3/s Aug. 23, 1966, gage height, 33.32 ft, from rating curve extended above 32,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.19 ft^3/s Aug. 1, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1904 reached a stage of 28.0 ft, from information by Panhandle and Santa Fe Railway Co. (For dates of other historical floods see stations 08404000, 08406500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14,400 ft^3/s Aug. 11, gage height, 17.83 ft; minimum recorded, 14 ft^3/s May 8, but may have been lower during periods of missing or fault gage-height record Apr. 19-21, June 12-17, or July 21-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	83	46	52	41	36	23	17	21	47	24	71
2	86	77	49	52	39	34	21	16	21	35	23	73
3	62	57	50	53	38	32	26	15	21	27	22	60
4	51	56	50	53	37	33	30	15	21	31	21	79
5	39	79	50	53	33	39	33	16	25	46	20	101
6	34	66	51	49	29	39	29	15	32	34	16	96
7	29	59	50	44	27	38	24	15	26	26	16	91
8	40	53	49	44	26	38	18	15	23	23	18	69
9	56	53	49	44	27	37	17	15	22	22	225	63
10	71	52	50	44	29	39	17	16	19	20	345	67
11	100	51	49	47	26	37	18	16	17	19	6290	71
12	60	51	50	47	26	35	18	16	14	18	7550	71
13	42	49	50	45	25	36	19	16	14	17	2880	72
14	34	48	50	42	29	34	19	15	14	16	691	70
15	31	48	44	41	31	33	18	15	14	15	1930	61
16	33	49	43	41	31	32	18	19	14	17	1510	61
17	43	49	47	41	31	33	18	98	14	22	691	58
18	56	47	51	43	33	31	16	135	15	21	548	69
19	55	47	52	43	30	28	14	29	18	19	304	58
20	42	46	52	42	26	26	14	26	24	16	180	55
21	56	48	52	42	26	25	14	33	30	15	180	53
22	67	46	52	42	27	24	17	35	37	15	214	52
23	59	46	52	42	29	20	21	30	38	15	200	63
24	47	46	51	43	31	19	22	26	38	15	164	65
25	49	46	50	44	31	19	19	26	34	15	117	66
26	48	48	53	43	35	19	17	27	31	16	89	64
27	45	47	54	43	35	19	18	28	30	18	74	79
28	54	47	54	42	33	19	19	33	48	17	69	114
29	65	48	54	42	34	18	20	35	310	17	73	83
30	89	47	56	42	---	18	19	27	125	18	89	88
31	91	---	52	42	---	20	---	23	---	21	80	---
TOTAL	1697	1589	1562	1387	895	910	596	863	1110	673	24653	2143
MEAN	54.7	53.0	50.4	44.7	30.9	29.4	19.9	27.8	37.0	21.7	795	71.4
MAX	100	83	56	53	41	39	33	135	310	47	7550	114
MIN	29	46	43	41	25	18	14	15	14	15	16	52
AC-FT	3370	3150	3100	2750	1780	1800	1180	1710	2200	1330	48900	4250

CAL YR 1983 TOTAL 13573 MEAN 37.2 MAX 163 MIN 15 AC-FT 26920
WTR YR 1984 TOTAL 38078 MEAN 104 MAX 7550 MIN 14 AC-FT 75530

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2 mi downstream from discharge station.

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to 1982.
WATER TEMPERATURES: October 1952 to 1982.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
OCT 28...	1130	54	8800	9970	8.2	7.9	22.0	17.0	4.6	11.6
DEC 28...	1500	51	9000	8950	8.0	7.5	6.0	4.5	5.1	11.5
FEB 27...	1315	36	16400	13000	8.1	7.6	11.5	9.0	6.9	11.6
APR 26...	1500	17	22600	21500	8.5	7.1	30.5	20.0	31	11.0
JUN 27...	1700	31	14700	14700	8.1	7.3	33.0	31.5	34	7.9
AUG 30...	1400	89	12200	12500	8.5	7.2	34.0	20.5	2.6	--

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
OCT 28...	2200	2100	510	220	1500	14	51	150	.000	--
DEC 28...	2000	1800	460	200	1400	14	37	--	--	--
FEB 27...	2500	2400	560	270	2200	20	73	150	11	140
APR 26...	2700	2600	540	330	3800	33	120	120	18	--
JUN 27...	2500	2400	580	260	2500	22	69	--	--	--
AUG 30...	1800	1700	410	180	2300	25	66	130	8.0	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT 28...	1800	2800	.80	13	4750	7000	.80	.250	.120	.020
DEC 28...	1700	2400	.80	12	6530	6300	2.0	.320	.030	<.010
FEB 27...	1900	4000	.90	6.1	9140	9100	.71	.480	.060	.040
APR 26...	2500	6600	.90	<1.0	14800	--	<.10	.650	.040	.020
JUN 27...	2100	4400	.90	7.4	10200	10000	<.10	.060	.120	.020
AUG 30...	1300	3500	.60	12	8130	7900	.16	.180	.050	.020

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
OCT 28...	1130	10	1	<100	<10	<1	<1	1	1	80	<1
APR 26...	1500	90	1	100	<10	<1	<1	<1	<1	120	3
JUN 27...	1700	<10	<1	300	<10	<1	6	<1	2	70	<1
AUG 30...	1400	20	2	<100	10	--	<1	--	--	80	--

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AC) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 28...	90	30	<.1	<1	5	2	<1	7200	67	30
APR 26...	130	100	.1	4	6	2	<1	--	65	30
JUN 27...	120	50	.4	4	<1	1	<1	9600	65	20
AUG 30...	70	60	.2	--	--	2	--	6300	40	20

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 28...	1130	20	200
DEC 28...	1500	10	30
FEB 27...	1315	3	54
APR 26...	1500	7	71
JUN 27...	1700	20	8000
AUG 30...	1400	37	K37000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 28...	1130	54	17.0	42	6.1	78
DEC 28...	1500	51	4.5	43	5.9	52
FEB 27...	1315	36	9.0	35	3.4	83
APR 26...	1500	17	20.0	64	2.9	95
JUN 27...	1700	31	31.5	101	8.5	96
AUG 30...	1400	89	20.5	23	5.5	96

08408500 DELAWARE RIVER NEAR RED BLUFF, NM

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¼SW¼SE¼ sec.23, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13070002, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 mi north of the New Mexico-Texas state line, 3.6 mi southwest of Red Bluff, 3.7 mi upstream from mouth and 14 mi south of Malaga. Mouth at Pecos River mile 405.6.

DRAINAGE AREA.--689 mi^2.

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year. Published as "near Malaga" 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder. Datum of gage is 2,900.66 ft National Geodetic Vertical Datum of 1929. Prior to May 1914, at site 3.0 mi upstream at different datum. May 1914 to June 1915 at site 2.5 mi downstream at different datum.

REMARKS.--Records good. One small upstream diversion. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years (1938-84), 13.0 ft^3/s, 9,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,400 ft^3/1 Oct. 2, 1955, gage height, 27.0 ft, from floodmarks, from rating curve extended above 6,500 ft^3/s on basis of slope-area measurements at gage heights, 12.84 ft, 17.55 ft, and 27.0 ft; no flow many days most years.

Maximum discharge since at least 1911 is that of Oct. 2, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,650 ft^3/s at 2200 hours Aug. 11, gage height, 9.89 ft, no other peak above base of 1,700 ft^3/s; no flow Aug. 3-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	541	2.7	2.5	2.8	2.7	2.4	2.3	1.8	.75	3.2	.06	3.7
2	114	2.7	2.6	2.8	2.7	2.4	2.2	1.7	.76	4.7	.04	3.6
3	55	2.7	2.6	2.9	2.7	2.4	2.1	1.6	1.3	2.2	.00	13
4	16	3.0	2.5	2.9	2.6	2.4	2.1	1.5	2.4	1.8	.00	5.5
5	9.0	48	2.4	2.8	2.6	2.5	2.2	1.5	.73	1.5	.00	3.5
6	6.7	23	2.4	2.8	2.6	2.5	2.1	1.4	.56	1.4	.00	3.1
7	5.4	5.7	2.6	2.8	2.6	2.4	2.1	1.3	.51	1.2	.00	2.9
8	17	3.5	2.6	3.0	2.6	2.3	2.1	1.3	.39	1.1	.11	2.8
9	10	2.9	2.7	3.0	2.6	2.3	2.1	1.3	.32	.94	374	2.7
10	9.1	2.7	2.7	2.9	2.6	2.3	2.0	1.3	.25	.83	368	2.6
11	5.9	2.6	2.6	2.7	2.6	2.3	2.0	1.3	.28	.68	846	2.5
12	3.9	2.6	2.6	2.7	2.4	2.3	2.0	1.2	1.6	.62	960	2.4
13	3.6	2.5	2.5	2.7	2.4	2.3	2.1	1.1	.80	.61	56	2.4
14	3.4	2.4	2.6	2.7	2.4	2.4	2.0	1.1	.51	.58	27	2.3
15	3.3	2.4	2.5	2.8	2.4	2.4	2.1	1.6	.41	.48	88	2.3
16	3.2	2.4	2.5	2.8	2.4	2.4	2.1	3.1	96	.34	21	2.5
17	3.1	2.5	2.6	2.8	2.4	2.3	2.1	10	48	.25	14	2.5
18	4.0	2.4	2.6	2.8	2.4	2.3	2.1	5.6	25	.18	11	2.4
19	3.7	2.3	2.6	2.8	2.4	2.3	2.1	2.3	132	.19	9.3	2.3
20	3.6	2.3	2.6	2.7	2.4	2.3	2.0	1.3	24	.18	8.1	2.3
21	3.3	2.3	2.8	2.7	2.4	2.3	1.9	.92	6.8	.17	6.9	2.3
22	3.0	2.4	2.7	2.7	2.4	2.2	2.0	.79	8.3	.14	6.1	2.3
23	2.9	2.4	2.7	2.7	2.5	2.2	2.0	.75	4.4	.10	5.5	2.2
24	2.8	2.4	2.7	2.7	2.4	2.2	2.0	.73	2.8	.05	5.2	2.2
25	2.7	2.5	2.7	2.7	2.4	2.2	1.9	.77	2.4	.07	5.0	2.2
26	2.7	2.5	2.7	2.7	2.4	2.3	1.7	.76	2.1	.09	4.7	2.5
27	2.8	2.5	2.8	2.7	2.4	2.2	1.7	.82	2.1	.18	4.2	2.7
28	2.8	2.5	2.9	2.7	2.3	2.2	1.8	.73	11	.29	4.0	2.7
29	2.7	2.5	2.8	2.7	2.4	2.2	1.7	.75	50	.21	3.8	2.8
30	2.7	2.5	2.8	2.7	---	2.2	1.8	.80	7.8	.14	3.6	2.8
31	2.7	---	2.7	2.7	---	2.2	---	.79	---	.08	3.5	---
TOTAL	852.0	145.8	81.6	85.9	72.1	71.6	60.4	51.91	434.27	24.50	2835.11	92.0
MEAN	27.5	4.86	2.63	2.77	2.49	2.31	2.01	1.67	14.5	.79	91.5	3.07
MAX	541	48	2.9	3.0	2.7	2.5	2.3	10	132	4.7	960	13
MIN	2.7	2.3	2.4	2.7	2.3	2.2	1.7	.73	.25	.05	.00	2.2
AC-FT	1690	289	162	170	143	142	120	103	861	49	5620	182

CAL YR 1983 TOTAL 2163.00 MEAN 5.93 MAX 541 MIN .00 AC-FT 4290
WTR YR 1984 TOTAL 4807.19 MEAN 13.1 MAX 960 MIN .00 AC-FT 9540

08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'04", long 103°54'35", Reeves County, Hydrologic Unit 13070001, at right end of Red Bluff Dam on the Pecos River, 2.8 mi upstream from Salt Creek, and 5.2 mi north of Orla.

DRAINAGE AREA.--20,720 mi^2, approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage. Datum of gage is 0.43 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--The reservoir is formed by a rock-faced earthfill dam 9,200 ft long. The dam was completed and storage began in September 1936. The dam and reservoir are owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone and Grandfalls. The uncontrolled emergency spillway is a cut through natural ground located to the right of right end of dam is 790 ft wide. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft high. Inflow is regulated by many reservoirs and diversion dams. The capacity curve is based on Geological Survey topographic map, survey of 1925. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam	2,856.0	-
Crest of spillway	2,845.0	340,000
Top of gates (top of conservation pool)	2,842.0	310,000
Crest of spillway	2,827.0	166,500
Lowest gated outlet (invert)	2,764.0	3,000

COOPERATION.--Gage-height records and capacity curve were furnished by Red Bluff Water Power and Control District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft Sept. 27-28 1941, gage height, 2,846.2 ft, observed on nonrecording gage at service spillway (affected by variable drawdown due to flow through tainter gates); minimum observed, 11,080 acre-ft May 13, 1948, gage height, 2,781.4 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 91,500 acre-ft Aug. 16-30, Sept. 4, gage height, 2,814.5 ft; minimum observed, 35,280 acre-ft Oct. 1, gage height, 2,798.4 ft.

Capacity table (gage height, in feet, and total contents, in acre-feet)

Gage height	Contents	Gage height	Contents
2,798.0	34,400	2,810.0	71,500
2,804.0	50,000	2,815.0	94,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35280	39500	42000	44300	46700	47000	45800	43000	43000	48200	46700	91000
2	36380	39500	42000	44600	47000	47000	45500	43000	43000	48500	46700	91000
3	36600	39750	42000	44600	47000	47000	45500	43000	43000	48500	46700	91000
4	36840	39750	42000	44900	47000	47000	45500	42750	43250	48500	46700	91500
5	36840	40250	42250	44900	47000	47000	45500	42750	43250	48500	46700	91000
6	37080	40500	42250	44900	47000	47000	45500	42500	43250	48500	46700	91000
7	37080	40500	42500	45200	47000	47000	45200	42500	43250	48500	46700	91000
8	37320	40500	42500	45200	47300	47000	45200	42500	43250	48500	46700	91000
9	37320	40750	42500	45200	47300	47000	45200	42250	43250	48200	46700	91000
10	37320	40750	42750	45500	47300	47000	44900	42250	43250	48200	48500	91000
11	37560	41000	42750	45500	47300	47000	44900	42250	43000	48200	50300	91000
12	37560	41000	43000	45500	47300	47000	44900	42000	43000	48200	63500	91000
13	37560	41000	43000	45500	47300	47000	44900	42000	43000	48200	76400	90500
14	37800	41000	43000	45800	47300	47000	44600	42000	43000	47900	80000	90500
15	37800	41000	43000	45800	47300	47000	44600	41750	43000	47900	82250	90500
16	37800	41000	43000	45800	47300	47000	44600	41750	42750	47900	85850	90500
17	38040	41250	43250	45800	47300	47000	44600	42250	43250	47900	88100	90500
18	38040	41250	43250	45800	47300	47000	44300	42750	43250	47900	89000	90000
19	38280	41250	43250	45800	47300	47000	44300	43000	43500	47600	90000	90000
20	38280	41250	43500	46100	47300	47000	44300	43250	47000	47600	91000	90000
21	38520	41500	43500	46100	47300	47000	44000	43250	47000	47600	91000	90000
22	38520	41500	43500	46100	47300	46700	44000	43250	47000	47600	91000	90000
23	38760	41500	43500	46100	47000	46700	44000	43250	47300	47300	91000	90000
24	38760	41500	43500	46400	47000	46700	43750	43250	47300	47300	91000	90000
25	38760	41500	43500	46400	47000	46400	43750	43250	47300	47300	91000	90000
26	39000	41500	43750	46400	47000	46700	43500	43250	47300	47300	91500	90000
27	39000	41750	43750	46400	47000	46400	43500	43250	47300	47000	91500	90000
28	39000	41750	43750	46700	47000	46100	43500	43000	47600	47000	91500	89500
29	39250	41750	44000	46700	47000	46100	43250	43000	47600	47000	91500	89500
30	39250	42000	44000	46700	---	45800	43250	43000	48200	47000	91500	89500
31	39250	---	44300	46700	---	45800	---	43000	---	47000	91000	---
MAX	39250	42000	44300	46700	47300	47000	45800	43250	48200	48500	91500	91500
MIN	35280	39500	42000	44300	46700	45800	43250	41750	42750	47000	46700	89500
(†)	+4850	+2750	+2300	+2400	+300	-1200	-2550	-250	+5200	-1200	+44000	-1500

CAL YR 1983 MAX 57900 MIN 34190 (†) -8100
WTR YR 1984 MAX 91500 MIN 35280 (†) +55100

(†) CHANGE IN CONTENTS IN ACRE-FEET

[illegible] AVAILABLE

08412500 PECOS RIVER NEAR ORLA, TX

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, Hydrologic Unit 13070001, on right bank at bridge on Farm Road 652, 5.5 mi downstream from Salt Creek (Screw Bean Arroyo), 5.9 mi northeast of Orla, and 8.5 mi downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 mi^2, approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1937 to current year.

REVISED RECORDS.--WSP 928: 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1969, at site 6.9 mi downstream at datum 12.81 ft lower.

REMARKS.--Records fair. Most of flow is released from storage in Red Bluff Reservoir (station 0841000). Occasional runoff from draws between dam and station. Many diversions above Red Bluff Reservoir for irrigation.

AVERAGE DISCHARGE.--47 years (water years 1938-84), 159 ft^3/s, 115,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft^3/s Sept. 29, 1941, gage height, 20.74 ft, site and datum then in use; no flow at times in 1946 and 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft^3/s June 19 at 2130 hours, gage height, 14.34 ft; minimum daily, 2.2 ft^3/s Feb. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	7.9	10	8.5	4.7	32	36	33	5.7	13	8.9	41
2	13	7.5	9.9	9.1	4.6	32	36	34	5.2	14	8.9	42
3	11	7.9	9.0	11	4.3	32	35	34	4.8	14	8.4	72
4	10	8.7	7.8	11	3.9	31	34	34	5.7	10	7.9	45
5	10	31	6.9	11	3.5	31	33	35	4.4	9.4	8.9	42
6	10	12	6.9	13	3.6	31	33	35	4.4	9.4	8.4	43
7	9.5	11	6.6	10	3.8	31	32	36	4.4	7.9	8.4	44
8	9.1	9.6	6.5	9.7	3.3	31	32	36	3.6	7.9	10	46
9	9.4	8.9	5.9	9.7	2.8	31	30	37	3.3	6.9	15	50
10	9.4	8.5	6.4	9.7	2.5	31	28	39	3.3	6.5	30	53
11	8.8	8.7	6.3	10	2.5	30	29	40	3.0	7.4	20	57
12	9.0	9.0	6.3	9.0	2.2	30	24	40	2.7	10	35	55
13	9.1	8.7	6.3	8.4	2.2	30	23	42	3.0	6.1	50	57
14	8.7	8.6	6.1	7.4	2.3	30	22	44	3.3	6.1	32	59
15	8.5	8.3	6.2	7.4	5.4	30	21	46	4.4	6.5	20	58
16	8.7	9.8	5.7	7.5	7.7	30	21	33	3.3	6.1	19	58
17	8.8	10	6.1	7.3	9.3	30	22	59	3.6	6.5	17	64
18	8.1	11	6.1	7.1	8.4	31	23	84	5.2	6.5	15	68
19	41	10	6.5	7.3	8.4	29	23	134	838	6.5	14	71
20	18	10	6.5	7.4	9.7	29	23	36	844	6.9	13	69
21	12	10	6.9	7.0	52	30	23	16	129	6.9	11	69
22	11	10	6.5	6.8	36	32	23	10	68	6.9	11	69
23	10	10	6.9	7.1	35	34	23	6.9	49	7.4	11	66
24	9.5	11	5.8	6.7	34	47	24	5.9	41	7.4	12	64
25	9.6	11	5.5	6.2	34	50	24	6.2	35	7.4	12	56
26	7.8	11	5.0	6.2	33	51	29	5.5	26	7.9	12	47
27	8.6	11	8.1	5.6	33	52	31	5.1	22	7.9	12	48
28	8.1	11	7.6	5.1	33	45	33	5.6	28	7.9	17	48
29	8.0	11	7.6	4.7	32	51	33	3.7	26	7.9	42	43
30	7.8	10	7.3	5.1	---	39	31	4.4	19	7.9	41	47
31	7.9	---	7.9	4.7	---	36	---	5.2	---	8.4	41	---
TOTAL	335.4	313.1	213.1	246.7	417.1	1079	834	985.5	2198.3	251.5	571.8	1651
MEAN	10.8	10.4	6.87	7.96	14.4	34.8	27.8	31.8	73.3	8.11	18.4	55.0
MAX	41	31	10	13	52	52	36	134	844	14	50	72
MIN	7.8	7.5	5.0	4.7	2.2	29	21	3.7	2.7	6.1	7.9	41
AC-FT	665	621	423	489	827	2140	1650	1950	4360	499	1130	3270

CAL YR 1983 TOTAL 10486.6 MEAN 28.7 MAX 178 MIN 4.8 AC-FT 20800
WTR YR 1984 TOTAL 9096.5 MEAN 24.9 MAX 844 MIN 2.2 AC-FT 18040

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: March 1953 to current year.

REMARKS.--Station is operated by the Texas District.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 29,400 microsiemens May 16, 1978; minimum daily, 1,600 microsiemens June 19, 1984.
WATER TEMPERATURES (Water years 1953-61, 1968-84): Maximum daily, 31.0°C Aug. 13, 1978, Aug. 13, 1982; minimum daily, 0.0°C several days 1982-84.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 26,200 microsiemens Oct. 3; minimum daily, 1,600 microsiemens June 19.
WATER TEMPERATURES: Maximum daily, 30.0°C July 20, Aug. 7; minimum daily, 0.0°C several days during winter period.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 27...	1405	8.7	18900	17400	7.9	18.0	3400	3100	850	300
JAN 05...	1255	12	19600	19600	7.5	7.0	3500	3400	890	310
APR 11...	1530	31	16000	16100	7.4	19.0	2900	2800	690	290
MAY 31...	1610	5.9	17100	17000	7.4	28.0	3100	3000	730	300
AUG 23...	0925	13	16300	16300	7.4	27.0	2800	2700	710	260

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 27...	3100	24	59	240	2300	5500	1.2	5.2	12000
JAN 05...	3600	27	54	130	2800	5900	1.4	9.8	14000
APR 11...	2700	22	63	92	2700	4600	1.0	1.9	11000
MAY 31...	3000	24	58	67	2700	4900	1.1	4.0	12000
AUG 23...	2800	24	57	98	2600	4500	1.0	1.9	11000

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17900	19000	14900	20200	18100	15800	15900	16100	17100	18000	16600	15700
2	21100	18900	14600	19600	18500	15900	16300	16100	17200	17500	16800	15800
3	26200	18800	13200	19500	18200	15700	16400	16200	17300	17400	16700	11700
4	25100	18900	14900	19600	18600	15800	16200	16200	15200	17600	16900	13600
5	24100	15000	14300	19900	18700	16000	16200	16100	16700	17800	16700	16200
6	22800	13400	14600	19000	18500	15900	16300	16200	17000	17900	16800	16500
7	22000	19800	13100	19100	18400	15800	16200	16200	17600	17800	16800	16400
8	21600	19700	14300	19600	18600	15700	16300	16300	17800	17700	16500	16200
9	21100	20600	14100	19000	18400	15900	16300	16200	17800	17800	14900	16100
10	20700	21000	16800	19500	18500	15800	16400	16100	17700	17800	16200	16000
11	21100	20800	15700	19600	18600	16000	16400	16000	17700	17700	18200	15800
12	21000	20200	13300	19600	18700	15900	16300	16100	17500	17400	20500	15700
13	21100	19600	14100	18500	18600	16000	16200	16200	17600	17600	17400	15700
14	21100	19500	13400	19000	18500	15900	16300	16100	17400	17400	13100	15600
15	21500	19400	15100	18500	18600	15900	16200	16200	17200	17500	13200	15600
16	21300	19000	14700	18800	18600	15800	16300	15700	17000	17500	14100	15500
17	21000	18400	12300	17400	18300	15900	16100	16300	16900	17400	15000	15600
18	20800	18100	13800	18600	18400	15600	16200	15500	16700	17400	14700	15400
19	19500	18200	14200	18800	18300	15800	16300	14800	1600	17300	15200	15600
20	22200	18400	17000	19200	17700	15900	16400	14600	2000	17300	15700	15600
21	21500	18300	14600	19300	15500	15800	16500	14700	9200	17200	16200	15700
22	21700	18500	14300	19400	15600	15900	16400	16100	12100	17400	16400	15600
23	21800	18300	13600	18900	15700	16000	16300	17000	14800	17100	16300	15800
24	21100	18200	14400	19100	15800	15600	16300	17100	15900	17000	16600	15700
25	19900	18600	14900	19100	15700	15400	16400	17300	16700	17000	16900	15600
26	19000	18900	15300	19200	15800	15500	16300	17200	17000	16600	17000	15700
27	18500	19100	14700	19100	15700	15500	16400	17400	17300	16700	17200	15600
28	19000	19200	17000	19000	15600	15600	16200	17200	15900	16800	16900	15800
29	19200	19300	18200	18900	15700	15500	16100	17400	16600	16900	16000	16000
30	19300	19500	19800	18900	---	15600	16200	17200	18400	17000	15900	16600
31	19300	---	20300	18800	---	15800	---	17100	---	16500	15800	---
MEAN	21100	18800	15000	19100	17600	15800	16300	16300	15600	17400	16200	15600

WTR YR 1984 MEAN 17100 MAX 26200 MIN 1600

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	17.0	6.0	4.0	5.0	10.0	15.0	18.0	24.0	28.0	---	25.0
2	23.5	18.5	7.0	5.0	8.0	---	18.0	18.0	25.0	27.0	---	26.0
3	23.5	19.0	9.0	5.0	7.0	15.0	17.0	19.0	---	---	25.0	23.0
4	23.0	19.0	9.0	5.5	7.0	13.0	15.0	21.0	22.5	27.0	25.0	22.0
5	22.0	18.0	9.0	5.0	7.0	---	13.0	20.0	24.0	27.0	25.0	22.0
6	23.0	16.0	7.0	7.0	9.0	---	16.0	21.0	24.0	26.5	26.0	24.0
7	22.5	16.0	5.0	7.0	7.0	---	13.0	20.0	25.0	27.0	30.0	22.0
8	21.0	17.0	5.0	7.5	8.5	14.0	16.0	---	25.0	27.0	27.0	25.0
9	21.0	15.0	6.0	7.5	7.0	9.0	17.0	19.0	26.0	27.0	25.0	25.0
10	19.0	15.0	7.0	7.0	8.0	10.0	16.0	21.0	26.0	26.5	23.0	25.0
11	19.0	12.0	7.0	6.0	10.0	9.0	16.0	22.0	26.0	27.0	24.0	25.0
12	19.0	13.0	8.0	6.0	7.5	16.0	16.0	21.0	26.0	26.0	26.0	25.0
13	19.0	12.0	8.0	5.0	8.0	13.0	16.0	21.0	24.5	26.0	26.0	25.0
14	17.0	15.0	7.5	4.0	9.0	14.0	14.0	21.0	25.0	24.0	25.0	23.5
15	18.0	13.0	6.5	3.5	10.0	14.5	17.0	21.0	26.0	26.0	26.0	23.0
16	---	12.0	6.0	2.0	9.0	14.0	16.0	21.0	25.0	25.0	---	21.0
17	19.0	11.5	7.0	3.0	9.0	15.0	16.0	---	---	26.0	25.0	22.0
18	20.0	12.0	1.0	2.0	10.0	14.0	19.0	20.0	25.0	26.0	26.0	22.0
19	19.5	10.0	1.0	.0	9.5	12.0	18.0	22.0	20.0	26.0	26.5	23.0
20	15.0	9.0	1.0	.0	---	14.5	19.0	21.0	21.0	30.0	27.0	21.0
21	14.5	---	1.0	.0	6.0	15.0	17.0	23.0	24.0	27.0	27.0	19.5
22	15.0	10.0	.0	---	7.5	15.0	16.0	26.0	26.0	---	28.0	25.0
23	17.0	9.0	1.0	3.0	9.0	13.0	17.0	26.0	27.0	28.0	26.0	---
24	15.5	7.0	---	8.0	9.0	12.0	18.0	25.0	27.0	26.0	25.5	23.0
25	16.0	7.0	---	5.0	9.5	13.0	19.0	25.0	27.0	26.0	26.0	24.0
26	15.0	8.0	---	6.0	9.5	15.0	18.0	26.0	27.0	---	26.0	17.0
27	15.0	6.0	3.0	5.5	7.0	15.0	---	---	27.0	---	26.0	17.0
28	15.0	5.0	4.0	6.0	7.0	13.0	---	25.0	26.0	26.0	---	19.0
29	---	5.5	.0	7.0	7.0	15.0	---	20.0	26.0	---	27.0	16.0
30	16.0	5.0	.0	7.5	---	14.0	---	21.0	27.0	27.0	26.0	16.0
31	17.0	---	.0	5.0	---	13.0	---	22.0	---	---	20.5	---
MEAN	18.5	12.0	4.5	5.0	8.0	13.5	16.5	21.5	25.0	26.5	26.0	22.5

WTR YR 1984 MEAN 16.5 MAX 30.0 MIN .0

MIMBRES RIVER BASIN

08477110 MIMBRES RIVER AT MIMBRES, NM
(National stream-quality accounting network station)

LOCATION.--Lat 32°51'17", long 107°58'23", in NW¼SW¼ sec.3, T.16 S., R.11 W., Grant County, Hydrologic Unit 13030202, on left bank 100 ft downstream from Willow Springs Canyon, 0.3 mi east of Mimbres, 1.1 mi downstream from Shepard Canyon, 2.5 mi downstream from Bear Canyon and at mile 73.1.

DRAINAGE AREA.--184 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft, from topographic map. Prior to Jan. 17, 1979 at datum 2.29 ft higher.

REMARKS.--Water-discharge records good.

AVERAGE DISCHARGE.--6 years, 16.4 ft^3/s, 11,880 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,270 ft^3/s Aug. 25, 1984, gage height, 7.21 ft from floodmarks, from rating curve extended above 450 ft^3/s on basis of slope-area measurement of peak flow; minimum, 0.22 ft^3/s Aug. 22, 1980.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 2	1645	948	5.58	Aug. 4	1700	791	5.30
July 17	1430	231	4.25	Aug. 25	2030	*3270	7.21

Minimum discharge, 1.5 ft^3/s July 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	13	10	16	11	8.3	7.2	5.0	4.1	5.5	4.0	22
2	480	13	12	16	10	8.2	7.8	4.9	4.0	5.1	4.0	21
3	306	13	22	16	10	8.7	7.4	4.8	3.8	4.1	12	19
4	122	20	23	16	9.7	8.1	7.2	4.7	3.7	3.2	59	17
5	58	26	21	16	9.7	9.4	7.1	4.8	3.5	2.8	19	16
6	38	20	17	20	9.3	11	6.9	4.9	3.3	2.2	16	15
7	26	17	15	22	9.0	11	6.5	5.0	3.1	2.4	25	15
8	21	15	15	21	8.5	11	6.4	5.2	3.0	2.5	18	15
9	19	14	14	20	9.2	10	6.4	5.5	2.7	2.5	17	15
10	18	14	13	18	8.9	9.3	5.9	5.8	2.5	2.5	19	14
11	17	14	13	18	8.5	7.6	5.7	5.7	2.5	2.5	33	14
12	16	13	13	15	8.5	7.6	5.9	5.7	2.5	2.5	26	13
13	16	13	13	15	8.8	7.7	5.7	5.4	2.3	2.1	32	11
14	16	13	12	16	9.5	9.0	5.9	5.1	2.4	1.8	26	11
15	16	12	12	15	9.3	9.0	5.7	5.4	3.8	1.6	20	11
16	16	12	11	15	8.9	8.5	5.9	6.6	4.6	5.0	22	11
17	16	12	11	14	8.0	7.5	6.0	6.0	5.0	11	19	11
18	15	13	11	13	7.3	7.2	5.7	5.6	4.1	4.6	13	11
19	15	12	11	13	5.4	6.4	5.3	5.3	4.2	4.2	9.8	11
20	17	12	11	13	5.2	5.9	5.2	5.0	4.6	4.4	8.7	12
21	15	13	10	13	4.2	5.5	5.3	4.8	5.6	4.2	9.0	12
22	15	12	10	13	3.2	5.3	5.4	4.5	5.7	15	37	14
23	15	12	10	12	4.5	5.1	5.5	4.4	4.9	12	27	15
24	15	11	9.9	12	4.5	4.9	5.6	4.2	2.3	8.2	21	15
25	15	11	10	12	6.3	4.9	5.9	4.0	2.3	7.0	130	15
26	15	11	10	12	4.7	5.3	6.0	3.8	4.3	5.6	111	15
27	16	11	13	11	5.3	5.9	5.8	3.7	5.2	5.5	63	15
28	15	11	26	11	7.6	6.8	5.6	3.6	4.2	5.1	46	15
29	14	11	23	11	8.5	7.6	5.3	3.7	4.2	4.7	34	15
30	13	10	19	11	---	7.3	5.2	4.0	5.2	4.5	30	15
31	13	---	17	11	---	6.8	---	4.2	---	4.3	25	---
TOTAL	1483	404	437.9	457	223.5	236.8	181.4	151.3	113.6	148.6	935.5	431
MEAN	47.8	13.5	14.1	14.7	7.71	7.64	6.05	4.88	3.79	4.79	30.2	14.4
MAX	480	26	26	22	11	11	7.8	6.6	5.7	15	130	22
MIN	13	10	9.9	11	3.2	4.9	5.2	3.6	2.3	1.6	4.0	11
AC-FT	2940	801	869	906	443	470	360	300	225	295	1860	855

CAL YR 1983 TOTAL 9428.2 MEAN 25.8 MAX 480 MIN 2.5 AC-FT 18700
WTR YR 1984 TOTAL 5203.6 MEAN 14.2 MAX 480 MIN 1.6 AC-FT 10320

NOTE: No gage-height record April 21 to June 6.

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)
NOV 02...	1400	12	220	225	8.2	7.7	22.0	16.0	55	10.1	96
JAN 11...	1400	17	220	230	8.1	8.0	11.0	11.0	3.0	9.0	97
MAR 21...	1300	5.7	220	253	8.3	8.4	22.0	18.0	2.7	7.6	100
JUN 06...	1600	3.7	250	294	8.6	8.4	24.0	21.0	.70	--	130
SEP 21...	0900	12	270	283	8.6	8.1	15.0	15.0	1.4	8.5	120

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
NOV 02...	0	28	6.3	9.7	.4	2.9	160	.000	110	17
JAN 11...	0	28	6.5	9.2	.4	2.7	130	.000	110	20
MAR 21...	0	30	6.6	11	.5	3.0	--	--	--	17
JUN 06...	17	38	8.1	12	.5	3.0	100	18	<110	16
SEP 21...	0	37	7.4	11	.4	3.2	130	11	100	16

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV 02...	2.7	.30	48	168	190	--	.13	.200	.250	.060
JAN 11...	2.7	.30	43	177	180	--	.17	.050	.090	.070
MAR 21...	3.5	.30	45	191	180	--	.23	.030	.050	.060
JUN 06...	3.1	.30	53	207	220	18	.38	.030	.130	.060
SEP 21...	3.2	.30	50	207	210	--	.29	.030	.090	.070

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JAN 11...	1400	60	2	28	.5	<1	<1	<3	5	34	<1
JUN 06...	1600	10	<1	45	1.0	<1	1	<3	3	4	<1
SEP 21...	0900	<10	<1	44	<1.0	<1	<1	<3	2	14	2

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JAN										
11...	7	21	<.1	<10	2	<1	<1	140	7	11
JUN										
06...	<4	<1	<.1	<10	3	<1	<1	190	9	<3
SEP										
21..	6	19	<.1	<10	2	<1	<1	170	8	20

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
02...	1400	83	370
JAN			
11...	1400	K7	44
MAR			
21...	1300	K21	40
JUN			
06...	1600	37	54
SEP			
21...	0900	190	950

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
02...	1400	12	16.0	190	6.2	97
JAN						
11...	1400	17	11.0	38	1.7	90
MAR						
21...	1300	5.7	18.0	22	.34	89
JUN						
06...	1600	3.7	21.0	78	.78	40
SEP						
21...	0900	12	15.0	8	.26	68

08481500 TULAROSA CREEK NEAR BENT, NM
(National stream-quality accounting network station)

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼NW¼ sec.32, T.13 S., R.11 E., Otero County, Hydrologic Unit 13050003, on right bank 50 ft downstream from old U.S. Highway 70 bridge, 2.6 mi west of Bent, and 8.5 mi northeast of Tularosa, and at mile 19.4.

DRAINAGE AREA.--120 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to current year. Prior to October 1982 published as "Rio Tularosa near Bent".

REVISED RECORDS.--WSP 1312: 1949(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,450 ft, from topographic map. Since Jan. 20, 1983, supplimental water-stage recorder at site 200 ft upstream and at datum 3.70 ft higher.

REMARKS.--Water-discharge records fair. Diversion for irrigation of about 1,000 acres 1959 determination, above station.

AVERAGE DISCHARGE.--36 years (1949-84), 10.3 ft^3/s, 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 4,280 ft^3/s June 18, 1965, gage height, 5.02 ft, from rating curve extended above 160 ft^3/s on basis of slope-area measurement of peak flow; no flow may 14, 1955, result of unusual regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft^3/s was computed for station approximately 6 mi downstream near Tularosa. Another flood may have occurred July 2, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 892 ft^3/s at 1430 hours Aug. 4, gage height, 3.38 ft, no other peak above base of 125 ft^3/s; minimum discharge, 3.2 ft^3/s June 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	16	16	15	13	15	13	14	9.6	12	20
2	17	16	18	16	15	13	15	12	15	11	14	18
3	16	16	17	15	15	13	16	12	13	10	17	15
4	16	19	18	15	15	14	14	12	13	15	46	15
5	16	14	16	15	15	14	16	12	14	12	18	15
6	15	14	16	15	15	14	15	9.5	15	12	18	14
7	16	14	16	15	15	14	17	10	15	12	18	14
8	16	14	16	16	15	14	14	11	15	12	18	14
9	15	14	15	15	15	14	15	12	15	13	17	14
10	16	14	15	16	15	15	16	12	15	12	17	14
11	16	14	15	16	15	13	17	12	13	12	17	14
12	16	15	16	16	14	12	17	12	13	13	17	14
13	16	15	16	16	14	12	17	12	14	12	17	23
14	15	15	16	16	15	14	17	11	14	12	15	19
15	15	15	16	16	15	14	17	14	14	9.9	15	18
16	15	15	15	15	15	14	16	17	13	9.1	16	17
17	15	15	15	16	14	14	20	16	10	9.5	16	16
18	15	16	15	15	14	14	24	15	13	12	17	13
19	16	16	15	15	14	12	24	14	13	12	18	13
20	16	16	16	15	14	14	15	11	14	11	16	13
21	16	17	16	15	14	13	14	12	13	10	17	13
22	16	20	15	15	14	14	12	13	13	11	16	13
23	16	17	15	15	14	14	12	13	13	11	17	13
24	16	17	15	15	14	15	13	13	13	11	17	13
25	16	17	15	15	14	13	13	13	13	11	16	13
26	16	17	15	15	13	14	14	13	13	11	13	13
27	16	17	16	15	13	14	13	13	13	11	16	13
28	16	16	16	15	14	16	13	13	13	12	15	13
29	16	16	15	15	13	16	13	13	12	9.9	16	13
30	16	16	15	15	---	16	13	13	12	10	15	14
31	16	---	15	15	---	16	---	14	---	12	14	---
TOTAL	487	473	486	475	417	432	467	392.5	403	351.0	531	444
MEAN	15.7	15.8	15.7	15.3	14.4	13.9	15.6	12.7	13.4	11.3	17.1	14.8
MAX	17	20	18	16	15	16	24	17	15	15	46	23
MIN	13	14	15	15	13	12	12	9.5	10	9.1	12	13
AC-FT	966	938	964	942	827	857	926	779	799	696	1050	881

CAL YR 1983 TOTAL 5027.9 MEAN 13.8 MAX 26 MIN 5.8 AC-FT 9970
WTR YR 1984 TOTAL 5358.5 MEAN 14.6 MAX 46 MIN 9.1 AC-FT 10630

08481500 TULAROSA CREEK NEAR BENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
NOV 14...	1330	16	1290	1200	8.0	7.9	16.0	12.5	11	8.5
JAN 16...	1400	16	1700	1250	8.4	7.7	10.5	8.0	20	9.6
MAR 20...	1300	14	--	1290	8.5	7.8	25.5	13.0	14	9.8
MAY 29...	1430	14	1300	1220	8.2	7.9	24.0	19.0	7.2	8.1
JUL 16...	1400	6.1	1400	1450	8.1	8.1	33.5	23.5	60	7.0
SEP 17...	1500	14	1210	1160	8.2	7.9	26.0	19.0	15	7.6

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
NOV 14...	690	480	190	51	41	.7	1.3	--	--	--
JAN 16...	690	480	190	53	42	.7	1.2	--	--	--
MAR 20...	670	450	180	53	41	.7	1.2	250	7.0	220
MAY 29...	670	460	180	53	41	.7	1.0	230	12	--
JUL 16...	790	580	220	58	47	.8	1.6	260	.000	--
SEP 17...	630	410	170	50	37	.7	1.1	250	11	--

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV 14...	430	55	.40	15	955	910	.37	.020	.030	<.010
JAN 16...	460	56	.50	14	978	940	.34	<.010	.130	.020
MAR 20...	470	54	.40	13	982	950	<.10	.060	.020	.020
MAY 29...	440	52	.50	14	907	920	.35	.030	.020	<.010
JUL 16...	560	61	.50	15	1150	1100	.32	.070	.040	.010
SEP 17...	420	50	.50	14	884	890	.40	.100	.010	<.010

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
NOV 14...	1330	110	1	30	<.5	<1	1	<3	<1	120	1
MAR 20...	1300	--	--	--	--	--	--	--	--	--	--
MAY 29...	1430	40	<1	30	<1.0	1	<1	<3	4	27	6
JUL 16...	1400	30	<1	33	<1.0	<1	<1	<3	2	15	<1
SEP 17...	1500	30	<1	28	<1.0	<1	<1	<3	2	42	1

08481500 TULAROSA CREEK NEAR BENT, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV										
14...	30	32	<.1	<10	3	1	<1	2400	<6	34
MAR										
20...	40	--	--	--	--	--	--	--	--	--
MAY										
29...	27	20	.1	<10	6	<1	<1	2	<6	60
JUL										
16...	31	30	<.1	<10	4	<1	<1	2700	<6	11
SEP										
17...	24	16	<.1	<10	1	<1	<1	2	<6	11

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
14...	1330	160	36
JAN			
16...	1400	49	35
MAR			
20...	1300	14	39
MAY			
29...	1430	49	120
JUL			
16...	1400	0	450
SEP			
17...	1500	77	650

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
14...	1330	16	12.5	158	6.8	84
JAN						
16...	1400	16	8.0	29	1.3	81
MAR						
20...	1300	14	13.0	28	1.1	82
MAY						
29...	1430	14	19.0	72	2.7	46
JUL						
16...	1400	6.1	23.5	74	1.2	93
SEP						
17...	1500	14	19.0	62	2.3	56

08484500 LA LUZ CREEK AT LA LUZ, NM

LOCATION.--Lat 32°58'56", long 105°55'30", in SW¼NE¼ sec.25, T.15 S., R.10 E., Otero County, Hydrologic Unit 13050003, on right bank retaining wall of old diversion dam, 200 ft downstream of low-water crossing of county road, and 1.0 mi east of La Luz.

DRAINAGE AREA.--62.7 mi^2

PERIOD OF RECORD.--October 1983 to current year. Records for November 1931 to September 1932 published in WSP 733, are unreliable and should not be used.

REVISED RECORDS.--See PERIOD OF RECORD.

GAGE.--Water stage recorder. Altitude of gage 4870 ft, from topographic map.

REMARKS.--Records fair, except for period of no gage-height record, Aug. 23-29, which are poor. Diversions above station for municipal supply of Alamogordo. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2840 ft^3/s Aug. 23, 1984, gage height 10.2 ft, from floodmarks on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft^3/s and maximum (*), from rating curve extended above 11 ft^3/s on basis of slope-area measurements at gage heights 5.30 ft and 10.2 ft:

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
Oct. 02	1400	732	a5.30	Aug. 23	1730	*2840	a10.2
July 18	0015	407	4.19				

a from floodmarks

No flow July 20,29, and Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	.36	8.9	4.9	6.2	.12	.68	.10	.25	.22	.50	5.9
2	68	.36	15	4.9	5.5	.25	.64	.13	.25	.23	6.4	5.5
3	8.0	.42	14	4.9	4.3	1.1	.63	.13	.01	.53	3.6	5.8
4	5.2	17	8.0	4.6	2.5	1.6	.61	.11	.07	1.2	.80	5.3
5	.21	5.9	7.1	4.6	2.6	2.2	.62	.06	.25	1.2	3.0	4.8
6	.48	5.2	7.1	4.6	2.0	1.5	.63	.12	.21	.66	4.2	3.0
7	.40	5.2	7.1	4.6	.76	.53	.98	.10	.21	.39	10	3.7
8	.89	5.6	7.1	4.4	2.2	.33	.77	.09	.21	.18	44	3.4
9	.06	5.6	7.1	4.3	4.0	.79	3.0	.14	.18	.16	15	3.3
10	2.8	5.6	6.7	6.0	4.0	1.2	4.2	.11	.18	.15	5.0	3.6
11	5.3	5.6	7.1	7.3	4.0	.96	3.9	.05	.12	.22	9.6	3.5
12	5.2	5.9	7.1	7.5	4.2	.95	3.7	.74	.04	.86	10	3.6
13	5.2	5.9	7.1	7.9	4.1	4.1	4.1	1.7	.16	.63	25	4.3
14	5.1	3.2	7.1	7.9	4.2	5.5	3.7	.90	.16	.28	11	3.2
15	5.0	.36	6.7	7.9	4.3	.54	3.3	27	13	.19	13	3.0
16	4.9	.36	6.3	7.5	5.5	.54	3.4	6.9	7.2	.10	11	3.6
17	4.9	.42	6.7	7.6	5.8	.49	2.7	.88	4.4	13	5.5	4.1
18	5.6	.48	6.7	7.5	5.8	.57	.59	.45	3.6	46	4.0	3.3
19	5.3	.48	6.7	7.3	5.8	.61	.58	.64	3.0	.05	9.9	2.8
20	5.4	.48	6.7	6.8	5.6	.62	.56	.61	1.4	.00	9.9	.03
21	5.1	8.1	4.2	6.2	6.0	.67	.58	.39	4.3	26	1.3	.00
22	5.2	22	.61	5.6	6.2	.77	.60	.37	5.4	15	1.1	2.0
23	5.2	8.4	.50	5.5	3.0	.73	.58	.35	2.7	4.9	423	3.5
24	5.4	8.4	.50	4.9	.06	.77	.51	.33	.66	4.5	50	3.5
25	3.3	8.0	.93	4.7	.27	.73	.45	.29	.11	2.7	7.0	3.7
26	.16	9.4	2.2	5.1	.03	.73	.30	.22	.07	2.4	45	4.0
27	.22	8.9	4.5	5.3	.39	.83	.21	.19	6.7	3.4	6.5	3.5
28	.19	8.9	5.0	5.6	.16	.95	.15	.18	2.9	.20	6.5	4.0
29	.16	8.4	5.0	5.5	.11	.83	.19	.24	.30	.00	6.5	4.3
30	.32	8.9	5.9	5.9	---	.70	.17	.29	.25	.90	6.2	4.3
31	.36	---	4.6	5.9	---	.72	---	.29	---	.80	5.1	---
TOTAL	170.55	173.82	190.24	183.2	99.58	32.94	43.03	44.10	58.29	127.05	759.60	108.53
MEAN	5.50	5.79	6.14	5.91	3.43	1.06	1.43	1.42	1.94	4.10	24.5	3.62
MAX	68	22	15	7.9	6.2	5.5	4.2	27	13	46	423	5.9
MIN	.06	.36	.50	4.3	.03	.12	.15	.05	.01	.00	.50	.00
AC-FT	338	345	377	363	198	65	85	87	116	252	1510	215

CAL YR 1983 TOTAL 1127.80 MEAN 3.09 MAX 68 MIN .00 AC-FT 2240
WTR YR 1984 TOTAL 1990.93 MEAN 5.44 MAX 423 MIN .00 AC-FT 3950

08492900 SACRAMENTO RIVER NEAR SUNSPOT, NM

LOCATION.--Lat 32°42'50", long 105°45'15", in SW¼NE¼ sec.30, T.18 S., R.12 E., Otero County, Hydrologic Unit 13050004, on left abutment of concrete weir in Lincoln National Forest, 100 ft downstream from natural soda dam, 0.5 mi downstream from Hornbuckle Canyon, 3.2 mi downstream from Sacramento Lake, and 6.4 mi southeast of Sunspot.

DRAINAGE AREA.--12.8 mi^2.

PERIOD OF RECORD.--July to Sept. 1984.

GAGE.--Water-stage recorder with concrete control. Altitude of gage 7,830 ft from topographic map.

REMARKS.--Records good. Diversions above station for municipal water supply of Orogrande. Several observations of water temperature were made during the year.

EXTREMES FOR CURRENT YEAR.--For period July 10 to Sept. 30, maximum discharge, 22 ft^3/s Aug. 14, gage height, 2.24 ft; minimum, 0.80 ft^3/s July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	.97	2.9
2										---	1.0	3.6
3										---	1.1	2.8
4										---	1.4	2.7
5										---	1.1	2.6
6										---	1.0	2.6
7										---	1.2	2.6
8										---	2.0	2.5
9										---	2.4	2.5
10										.97	2.6	2.5
11										.94	2.4	2.5
12										.96	1.7	2.5
13										.93	1.9	2.7
14										.94	5.2	2.5
15										.93	3.9	2.4
16										.92	3.4	2.4
17										.99	2.9	2.4
18										1.1	2.8	2.4
19										1.0	2.9	2.4
20										1.0	2.8	2.4
21										.96	3.1	2.4
22										.97	2.9	2.4
23										.95	2.8	2.3
24										.94	2.9	2.2
25										1.0	2.8	2.3
26										.97	2.8	3.0
27										.95	2.7	2.4
28										.99	2.7	2.3
29										.93	3.3	2.3
30										1.1	3.0	2.2
31										.98	2.8	---
TOTAL										---	76.47	75.7
MEAN										---	2.47	2.52
MAX										---	5.2	3.6
MIN										---	.97	2.2
AC-FT										---	152	150

SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE¼SW¼ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi northwest of Carracas, 7.2 mi upstream from Piedra River, and at mile 332.8.

DRAINAGE AREA.--1,230 mi², approximately.

PERIOD OF RECORD.--Streamflow records, October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973.

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft, from river-profile map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 11,000 acres above station. Highwater diversions above station into Rio Grande Basin through Azotea tunnel (08284160) began in March 1971. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 632 ft³/s, 457,900 acre-ft/yr prior to completion of Azotea tunnel.
14 years (water years 1971-84), 590 ft³/s, 427,500 acre-ft/yr since completion of Azotea tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft³/s Sept. 6, 1970, gage height, 8.34 ft from rating curve extended above 6,000 ft³/s on basis of slope-area measurement of peak flow; minimum, about 5 ft³/s Dec. 10, 1961, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)
May 15	0500	5470	6.53	June 6	0330	2600	4.92
May 25	0600	*6200	7.02				

Minimum daily discharge, 140 ft³/s Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	153	224	180	200	190	220	582	721	2960	905	291	453
2	1800	224	180	190	200	240	480	669	2670	860	268	474
3	961	211	190	180	200	280	412	619	2310	852	300	388
4	740	201	190	180	200	290	427	669	2000	767	296	347
5	676	195	170	200	200	270	501	816	1830	702	283	312
6	613	195	140	200	200	260	682	969	2140	663	610	291
7	558	192	150	190	210	270	754	953	1820	619	501	268
8	529	192	160	200	210	290	767	937	1930	600	374	256
9	496	218	160	200	210	350	1210	1290	1560	529	312	235
10	480	188	170	200	210	550	747	1810	1410	463	279	221
11	453	198	170	200	210	480	795	2490	1320	501	268	214
12	427	195	160	210	210	582	760	2990	1410	453	291	264
13	407	195	170	210	200	663	913	3640	1490	443	291	245
14	402	201	170	210	220	781	1210	3850	1720	512	271	211
15	393	188	170	200	230	1220	1380	4470	1820	422	304	229
16	374	159	170	190	220	1510	1650	3910	1700	407	300	458
17	351	173	180	180	210	1180	1690	3320	1530	393	329	453
18	334	192	180	180	220	1120	1840	3120	1430	402	407	379
19	325	201	180	180	220	802	1870	2740	1350	398	405	320
20	304	198	180	180	200	969	1400	2870	1280	356	393	296
21	296	218	180	190	200	1330	953	3530	1360	325	374	275
22	283	159	180	200	210	1570	781	4210	1320	316	356	271
23	271	156	190	190	210	767	702	4770	1250	320	469	264
24	260	150	190	180	200	708	754	5370	1150	279	600	260
25	253	150	180	180	210	708	1010	5110	1130	300	529	249
26	245	160	180	180	200	637	781	4190	1370	283	553	245
27	231	160	190	180	200	625	657	3930	1150	260	469	271
28	228	160	200	180	200	582	619	3670	1080	275	402	268
29	228	170	180	180	200	682	637	3440	953	296	369	249
30	224	180	160	180	---	669	682	3340	929	360	351	238
31	221	---	160	180	---	564	---	3030	---	329	338	---
TOTAL	13516	5603	5410	5900	6000	21169	27646	87443	47372	14590	11583	8904
MEAN	436	187	175	190	207	683	922	2821	1579	471	374	297
MAX	1800	224	200	210	230	1570	1870	5370	2960	905	610	474
MIN	153	150	140	180	190	220	412	619	929	260	268	211
AC-FT	26810	11110	10730	11700	11900	41990	54840	173400	93960	28940	22970	17660

CAL YR 1983 TOTAL 271047 MEAN 743 MAX 4670 MIN 140 AC-FT 537600
WTR YR 1984 TOTAL 255136 MEAN 697 MAX 5370 MIN 140 AC-FT 506100

09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 3 mi downstream from Ignacio Creek, 5.2 mi northeast of Arboles Post Office, and 8 mi upstream from mouth.

DRAINAGE AREA.--629 mi².

PERIOD OF RECORD.--Streamflow records, August 1962 to current year. Gage operated 1895-1899, 1910-1927 at a site 7.5 mi downstream at altitude 6,000 ft. Low flow records probably not equivalent. Water-quality data available, November to August 1973.

GAGE.--Water-stage recorder. Datum of gage is 6,147.52 ft National Geodetic Vertical Datum of 1929, from Colorado State Highway Department bench mark.

REMARKS.--Records good. Diversions for irrigation of about 2,800 acres above station. Several ovservations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--22 years, 383 ft³/s, 277,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft³/s Sept. 6, 1970, gage height, 6.38 ft recorded, 7.55 ft from floodmarks, from rating curve extended above 4,400 ft³/s on basis of slope-area measurement of peak flow; minimum, 11 ft³/s Dec. 9, 1963, Oct. 1, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage Height (ft)
Apr. 19	0300	1650	3.30	May 25	0500	*2900	4.22
May 15	0300	2720	4.12				

Minimum daily discharge, 85 ft³/s Dec. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	820	138	118	120	100	113	395	564	1560	450	198	425
2	726	138	115	110	110	128	330	552	1490	420	188	582
3	588	128	120	101	110	143	308	570	1350	385	209	486
4	500	122	125	113	110	146	340	705	1250	335	191	405
5	405	120	113	118	110	132	460	820	1140	294	213	321
6	370	120	85	115	110	128	820	1010	1140	273	321	281
7	350	118	97	113	110	128	836	1030	1050	249	355	249
8	335	115	100	115	113	140	916	1030	1040	229	298	221
9	326	125	110	120	113	164	1060	1210	852	225	253	198
10	316	106	110	115	110	209	740	1490	756	237	225	177
11	303	115	100	113	113	273	772	1830	740	233	209	167
12	281	115	108	120	108	230	733	2120	772	205	209	221
13	257	115	108	118	106	280	820	2330	852	202	194	177
14	245	115	108	122	115	340	836	2400	956	229	194	158
15	233	110	110	115	120	425	932	2610	1000	213	198	213
16	217	101	108	110	108	475	1100	2530	972	194	184	445
17	202	106	110	100	113	455	1320	2260	916	221	188	460
18	191	113	110	100	118	486	1450	2140	820	205	198	365
19	184	113	108	100	108	460	1500	1830	748	194	194	303
20	177	113	106	100	99	546	1290	1960	788	170	257	269
21	170	125	108	110	104	712	1040	2260	740	164	281	245
22	164	104	110	110	108	884	876	2420	684	164	245	237
23	158	101	115	100	108	607	804	2520	635	155	257	217
24	155	97	113	100	101	570	852	2630	570	140	450	229
25	149	110	110	100	108	635	1000	2640	558	174	445	213
26	146	108	113	100	106	540	868	2440	656	198	420	198
27	140	108	118	100	99	510	712	2250	594	191	375	213
28	138	104	122	100	101	420	649	2060	558	209	316	202
29	138	108	104	100	108	425	614	1910	492	205	277	180
30	138	118	90	100	---	410	628	1820	480	237	257	170
31	138	---	113	100	---	380	---	1590	---	233	233	---
TOTAL	8660	3427	3385	3358	3147	11494	25001	55531	26159	7233	8032	8227
MEAN	279	114	109	108	109	371	833	1791	872	233	259	274
MAX	820	138	125	122	120	884	1500	2640	1560	450	450	582
MIN	138	97	85	100	99	113	308	552	480	140	184	158
AC-FT	17180	6800	6710	6660	6240	22800	49590	110100	51890	14350	15930	16320

CAL YR 1983 TOTAL 197243 MEAN 540 MAX 2690 MIN 85 AC-FT 391200
WTR YR 1984 TOTAL 163654 MEAN 447 MAX 2640 MIN 85 AC-FT 324600

09354500 LOS PINOS RIVER AT LA BOCA, CO

LOCATION.--Lat 37°00'34", long 107°35'56", in NE¼NW¼ sec.22, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on downstream end of right abutment of the Denver & Rio Grande Western Railroad Co. bridge, at southeast edge of La Boca, 0.1 mi upstream from Spring Creek, and 13 mi upstream from mouth.

DRAINAGE AREA.--510 mi^2, approximately.

PERIOD OF RECORD.--Streamflow records, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, July 1969 to August 1973.

GAGE.--Water-stage recorder. Datum of gage is 6,143.58 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi upstream since April 1941. Diversions for irrigation of about 33,000 acres above station. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--34 years, 221 ft^3/s, 160,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft^3/s July 27, 1957, gage height, 8.95 ft, from rating curve extended above 5,100 ft^3/s; minimum determined, 5.6 ft^3/s May 1, 3, 1977 (may have been lower during periods of freezeup).

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Oct. 5, 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft^3/s at 1100 hours May 24, gage height, 5.89 ft; minimum daily, 46 ft^3/s Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	502	118	92	95	85	118	210	254	1100	390	418	466
2	342	115	100	88	90	136	184	238	1040	385	406	430
3	290	112	105	85	90	178	169	230	1020	365	390	322
4	258	110	112	95	90	184	172	222	1010	365	395	302
5	250	92	92	88	90	166	187	226	1000	350	424	250
6	238	70	90	82	90	148	226	238	1040	355	568	210
7	222	64	90	82	90	160	250	250	1050	365	556	194
8	230	58	95	82	95	194	258	418	1050	375	484	198
9	258	60	92	82	95	266	310	598	924	395	442	184
10	250	60	88	66	90	385	282	732	908	395	406	178
11	246	76	82	57	95	430	282	820	804	370	326	194
12	250	74	82	49	90	350	424	748	568	322	526	302
13	250	70	80	46	90	342	460	724	442	355	556	198
14	238	62	82	60	95	334	478	724	385	395	532	184
15	290	58	80	54	95	472	496	796	322	355	526	190
16	365	58	82	55	90	365	520	860	375	375	520	198
17	360	58	80	80	95	322	520	908	360	355	448	187
18	370	78	82	80	98	302	508	988	342	346	466	163
19	370	80	80	80	100	278	526	1110	334	350	360	160
20	365	78	85	85	98	274	496	1080	375	334	406	160
21	360	92	90	85	98	274	442	1100	350	338	395	160
22	346	85	90	85	98	302	406	1160	346	338	442	169
23	258	76	98	80	95	262	385	1190	346	342	574	172
24	250	78	92	80	92	250	375	1280	346	342	772	166
25	246	85	95	80	95	262	395	1150	350	375	448	122
26	246	105	110	80	92	246	380	1160	380	436	412	154
27	246	98	133	80	92	242	342	1160	385	442	395	133
28	234	98	136	80	98	210	330	1200	355	460	385	160
29	136	100	108	80	100	206	322	1200	385	472	380	178
30	125	95	108	80	---	202	290	1150	406	472	370	187
31	118	---	102	80	---	194	---	1070	---	442	380	---
TOTAL	8509	2463	2933	2381	2711	8054	10625	24984	18098	11756	14108	6271
MEAN	274	82.1	94.6	76.8	93.5	260	354	806	603	379	455	209
MAX	502	118	136	95	100	472	526	1280	1100	472	772	466
MIN	118	58	80	46	85	118	169	222	322	322	326	122
AC-FT	16880	4890	5820	4720	5380	15980	21070	49560	35900	23320	27980	12440

CAL YR 1983 TOTAL 117649 MEAN 322 MAX 1340 MIN 58 AC-FT 233400
WTR YR 1984 TOTAL 112893 MEAN 308 MAX 1280 MIN 46 AC-FT 223900

09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE¼SW¼ sec.15, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on right bank in an excavated channel, 0.2 mi upstream from mouth, and 0.2 mi east of La Boca.

DRAINAGE AREA.--58 mi^2, approximately.

PERIOD OF RECORD.--Streamflow records, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, May 1974.

GAGE.--Water-stage recorder. Altitude of gage is 6,160 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Part of flow is return waste from irrigation. Several observations of specific conductance and water temperature were obtained and are published in Water Resources Data for Colorado.

AVERAGE DISCHARGE.--34 years, 31.1 ft^3/s, 22,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft^3/s Sept. 6, 1970, gage height, 4.62 ft, from rating curve extended above 160 ft^3/s on basis of field estimate of peak flow; maximum gage height, 5.98 ft Mar. 9, 1960 (backwater from ice); minimum discharge, 0.5 ft^3/s Nov. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Aug. 5	2400	298	1.75	Aug. 24	0200	*824	2.93

Minimum daily discharge, 4.4 ft^3/s Apr. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	6.1	7.5	5.6	6.5	37	10	29	66	74	82	71
2	92	5.6	7.4	5.0	6.5	54	6.1	23	66	76	80	69
3	64	5.2	7.5	4.8	6.5	60	4.8	24	62	72	78	57
4	62	5.2	7.0	5.5	6.5	38	4.4	29	64	71	84	48
5	62	5.2	6.0	5.5	6.5	24	4.4	29	71	78	106	57
6	60	5.2	6.0	5.5	6.5	11	5.6	27	74	72	174	64
7	60	5.2	5.5	5.0	6.5	12	8.5	27	69	71	120	67
8	59	5.6	5.5	5.5	7.0	15	9.2	27	66	72	100	67
9	55	5.6	6.0	5.5	7.0	20	8.5	29	66	72	92	66
10	50	5.2	6.0	5.0	6.5	28	7.4	32	66	72	96	57
11	48	5.2	5.5	5.0	7.0	30	6.5	39	64	71	94	57
12	50	5.2	6.0	6.0	6.5	26	6.1	47	60	69	96	64
13	50	5.6	6.0	6.5	6.5	24	5.6	55	57	69	98	60
14	50	5.2	6.0	6.9	7.0	26	5.6	60	57	76	94	59
15	50	4.8	6.0	6.5	7.5	32	6.1	59	59	74	100	62
16	28	4.8	6.0	6.5	7.0	16	6.1	69	66	72	86	66
17	11	5.2	6.0	6.0	7.0	11	7.4	60	67	74	80	67
18	10	6.9	6.0	6.0	7.5	10	38	64	66	74	102	64
19	8.5	6.9	5.5	6.0	7.0	7.8	8.5	64	66	74	92	66
20	7.4	6.1	5.6	6.0	6.5	7.4	9.2	64	67	74	94	67
21	6.9	10	6.0	6.5	6.5	8.5	7.8	62	67	78	90	67
22	6.9	6.5	6.0	6.5	7.0	9.2	6.9	54	67	78	88	67
23	6.5	6.0	6.5	6.0	7.0	8.5	6.1	55	66	78	130	66
24	6.1	6.0	7.8	6.0	6.5	6.5	6.1	55	67	76	360	62
25	6.1	6.9	7.4	6.0	6.9	6.9	6.1	48	71	78	100	59
26	6.1	6.5	16	6.0	6.5	6.5	6.1	52	69	78	90	69
27	6.1	7.0	30	6.0	6.9	7.8	6.1	52	66	80	62	36
28	6.1	6.5	36	6.0	7.4	6.9	7.4	57	69	80	59	66
29	6.1	7.0	12	6.0	21	5.6	8.5	54	69	82	59	66
30	6.1	7.5	10	6.0	---	6.1	9.0	57	76	82	57	69
31	6.1	---	8.5	6.5	---	7.4	---	57	---	82	62	---
TOTAL	1072.0	179.9	269.2	181.8	211.2	569.1	238.1	1460	1986	2329	3105	1882
MEAN	34.6	6.00	8.68	5.86	7.28	18.4	7.94	47.1	66.2	75.1	100	62.7
MAX	126	10	36	6.9	21	60	38	69	76	82	360	71
MIN	6.1	4.8	5.5	4.8	6.5	5.6	4.4	23	57	69	57	36
AC-FT	2130	357	534	361	419	1130	472	2900	3940	4620	6160	3730

CAL YR 1983 TOTAL 14978.9 MEAN 41.0 MAX 279 MIN 4.8 AC-FT 29710
WTR YR 1984 TOTAL 13483.3 MEAN 36.8 MAX 360 MIN 4.4 AC-FT 26740

09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼SE¼ sec.18, T.30 N., R.7 W., San Juan County, Hydrologic Unit 14080101, in gate shaft of outlet works structure near right abutment of Navajo Dam on San Juan River, 5.5 mi east of Archuleta, 33 mi east of Farmington, and at mile 298.6.

DRAINAGE AREA.--3,230 mi^2, approximately.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1962 to current year. Prior to October 1968 dead storage included.

REMARKS.-- Reservoir is formed by earth-rock-fill dam, completed in June 1963; storage began June 27, 1962. Capacity, 1,708,600 acre-ft between elevation 5,720 ft upstream toe of dam and 6,085 ft crest of spillway. Usable capacity 1,696,000 acre-ft above elevation 5,774.9 ft minimum operating level. Dead storage below elevation 5,774.9 ft is 12,600 acre-ft. Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,731,000 acre-ft July 2-4, 1973, elevation, 6,087.25 ft; minimum daily contents after June 1964 (initial filling period), 234,300 acre-ft Mar. 10, 11, 1965, elevation, 5,906.36 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,672,400 acre-ft July 5, elevation, 6,083.45 ft; minimum daily contents, 1,322,500 acre-ft Mar. 14, elevation, 6.058.30 ft.

Capacity table (elevation, in feet, and contents, in thousands of acre-feet)

6,015	864.5	6,035	1,056.7	6,055	1,281.3	6,075	1,546.2
6,020	910.1	6,040	1,109.4	6,060	1,343.5	6,080	1,619.5
6,025	957.2	6,045	1,164.3	6,065	1,408.3	6,085	1,696.0
6,030	1,006.0	6,050	1,221.6	6,070	1,475.8	6,090	1,775.7

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1626600	1615000	1580600	1545200	1455500	1348700	1332900	1370100	1578800	1670600	1652900	1660100
2	1630700	1614600	1579800	1543700	1452400	1345900	1331900	1370100	1585300	1671700	1652200	1660600
3	1631400	1614300	1579300	1542200	1449400	1342200	1330900	1369700	1591400	1672000	1651600	1660900
4	1631700	1613700	1578500	1540600	1446400	1339100	1330000	1370600	1596200	1672300	1651300	1660100
5	1630500	1613100	1577400	1538300	1443400	1335400	1329700	1371400	1601700	1672400	1651000	1659700
6	1631900	1612700	1575600	1536000	1439800	1331900	1328500	1372200	1606300	1671700	1651700	1658600
7	1631900	1611500	1574000	1533600	1436000	1329000	1327000	1374000	1611900	1671200	1653200	1657700
8	1632000	1609500	1572500	1531200	1432400	1327500	1325500	1376200	1616200	1670600	1653100	1656900
9	1632000	1608300	1571200	1528600	1428800	1326600	1327100	1378500	1621200	1669800	1652600	1656300
10	1632200	1607300	1570100	1526000	1425000	1325700	1327700	1382700	1623900	1669200	1652000	1654800
11	1631700	1606100	1568700	1523200	1421300	1325100	1328700	1390300	1627000	1668700	1651400	1653600
12	1631300	1604900	1567400	1520400	1417600	1324500	1331200	1397700	1630400	1668300	1651000	1652300
13	1631000	1603400	1566000	1517500	1414000	1323700	1335700	1405600	1633500	1667800	1651000	1650800
14	1630500	1601700	1564700	1514700	1410100	1322500	1340100	1415200	1637000	1667000	1650800	1650200
15	1629900	1600200	1563700	1511700	1406400	1324600	1344500	1425700	1640000	1666600	1650800	1649700
16	1629400	1598700	1562200	1508800	1403100	1325500	1347700	1435500	1643200	1665800	1651000	1649300
17	1629000	1597700	1561000	1505400	1399300	1327000	1351000	1443700	1646200	1664600	1651300	1649000
18	1628500	1596900	1559600	1502100	1395500	1328400	1355100	1451000	1648500	1663700	1651700	1648200
19	1627900	1596000	1558600	1498400	1391600	1329100	1357900	1458400	1651100	1662900	1652200	1647200
20	1627000	1594800	1557600	1494500	1387500	1330500	1360600	1465800	1653200	1662100	1651600	1645900
21	1626300	1593700	1556300	1490600	1383700	1332000	1362400	1475500	1655400	1661500	1651300	1644700
22	1625200	1592500	1554800	1487800	1379600	1334000	1364600	1487000	1656600	1660900	1651700	1643800
23	1624600	1591000	1554200	1484100	1376300	1334600	1365600	1499100	1658700	1660000	1656600	1643100
24	1623400	1590000	1553700	1480400	1372400	1335200	1366300	1511700	1660400	1658700	1658300	1641100
25	1622200	1588600	1553100	1476600	1368100	1335700	1367500	1521800	1662300	1658000	1659500	1639600
26	1621500	1587300	1551800	1474100	1364200	1335300	1368100	1531900	1664600	1656900	1660900	1638400
27	1620400	1585900	1551100	1470800	1360000	1335300	1368600	1542200	1666100	1656300	1660400	1637300
28	1619400	1584200	1550200	1466700	1356100	1334600	1369200	1552200	1667600	1655500	1659700	1636200
29	1618200	1583100	1548900	1464900	1352300	1334300	1369700	1560000	1668400	1655200	1659700	1634900
30	1616800	1581900	1547600	1461800	---	1333800	1369900	1566800	1669200	1654600	1659200	1634000
31	1615500	---	1546300	1458800	---	1333400	---	1573000	---	1653700	1659700	---
MAX	1632200	1615000	1580600	1545200	1455500	1348700	1369900	1573000	1669200	1672400	1660900	1660900
MIN	1615500	1581900	1546300	1458800	1352300	1322500	1325500	1369700	1578800	1653700	1650800	1634000
(†)	6079.70	6077.43	6074.98	6068.73	6060.66	6059.17	6062.03	6076.82	6083.24	6082.23	6082.62	6080.93
(††)	-2400	-33600	-35600	-87500	-106500	-18900	+36500	+203100	+96200	-15500	+6000	-25700

CAL YR 1983 MAX 1680000 MIN 1286000 (††) 70900
WTR YR 1984 MAX 1672400 MIN 1322500 (††) 16100

(†) ELEVATION, IN FEET, AT END OF MONTH.
(††) CHANGE IN CONTENTS, IN ACRE-FEET.

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in N sec.20, T.30 N., R.8 W., San Juan County, Hydrologic Unit 14080101, on left bank 0.5 mi upstream from Gobernador Canyon, 0.8 mi northeast of Archuleta, 7.2 mi downstream from Navajo Dam, and at mile 291.4.

DRAINAGE AREA.--3,260 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1954 to current year.

REVISED RECORDS.--The annual runoff for the 1958 water year as published in table 2, WSP 1733, is 455,000 acre-ft. The correct value is 1,455,000 acre-ft.

GAGE.--Water-stage recorder. Altitude of gage is 5,653 ft, from river-profile survey. Prior to Dec. 29, 1959, at site 5.0 mi upstream at altitude 55 ft higher. Dec. 29, 1959 to Nov. 15, 1964, at site 0.4 mi upstream at altitude 5 ft higher. Prior to Nov. 28, 1966, at altitude 2.0 ft higher.

REMARKS.--Water-discharge records good. Flow completely regulated by Navajo Reservoir (station 09355100) 7 mi upstream except for minor inflow from 30 mi^2 intervening drainage area. Highwater diversions through Azotea tunnel (station 08284160) into Rio Grande Basin began in March 1971. Diversions for irrigation of about 47,000 acres above station. Releases from Navajo Reservoir, beginning in January 1976, for use on Navajo Indian Irrigation Project bypass gage in tunnel on left bank. See tabulation below for monthly and annual releases as furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--7 years (water years 1956-62), 1,304 ft^3/s, 944,700 acre-ft/yr prior to closure of Navajo Dam. 22 years (water years 1963-84), 1,123 ft^3/s, 813,600 acre-ft/yr since closure of Navajo Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft^3/s July 27, 1957, gage height, 11.00 ft, site and datum then in use; minimum determined, 8 ft^3/s Feb. 28, 1963. Maximum discharge since construction of Navajo Dam in 1962, 6,500 ft^3/s June 20, 1965, gage height, 4.57 ft.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,530 ft^3/s Mar. 3; minimum daily, 600 ft^3/s Nov. 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1130	887	1080	1080	2080	2520	1520	1540	1850	820	891	869
2	1120	602	1080	1080	2090	2520	1530	1540	1490	828	890	876
3	1110	600	1090	1190	2090	2530	1530	1540	1490	834	897	877
4	1100	600	1090	1270	2090	2520	1530	1540	1500	837	895	874
5	1100	601	1080	1360	2090	2520	1530	1540	1360	841	896	876
6	1100	604	1080	1700	2210	2520	1530	1540	1100	842	838	874
7	1100	740	1070	1830	2370	2410	1530	1540	970	852	750	873
8	1100	1170	1070	1840	2380	2170	1530	1540	884	855	779	873
9	1110	1180	1070	1840	2400	2070	1530	1700	812	853	838	874
10	1100	1140	1080	1840	2410	2070	1530	1890	708	858	853	988
11	1120	1070	1080	1840	2410	2070	1530	1930	740	862	843	1120
12	1120	1070	1080	1910	2410	2070	1530	1970	648	863	843	1120
13	1120	1070	1080	1990	2410	2070	1530	1970	654	863	839	1120
14	1110	1070	1080	1990	2410	2070	1530	2000	700	861	848	1120
15	1110	1070	1080	2000	2410	1860	1530	2010	820	868	849	1130
16	1110	1070	1080	2010	2410	1530	1530	2010	788	881	848	1130
17	1110	1070	1080	2060	2410	1520	1530	2020	804	883	849	1120
18	1120	1080	1080	2060	2410	1520	1530	2030	780	883	854	1130
19	1120	1080	1080	2060	2410	1520	1530	1930	654	885	856	1120
20	1120	1070	1080	2060	2410	1520	1530	2060	660	888	853	1120
21	1120	1090	1080	2060	2410	1520	1530	2050	660	888	855	1120
22	1120	1090	1080	2060	2410	1520	1530	2070	700	888	868	1120
23	1120	1090	1090	2060	2420	1520	1530	2070	820	882	857	1120
24	1120	1080	1090	2060	2440	1520	1530	2090	828	884	862	1120
25	1130	1080	1090	2060	2480	1520	1530	2100	740	892	864	1120
26	1130	1090	1090	2060	2500	1520	1530	2110	642	892	865	1120
27	1130	1090	1090	2080	2500	1520	1530	2120	642	892	866	1120
28	1130	1090	1080	2080	2510	1520	1530	2130	648	892	869	1120
29	1130	1080	1080	2080	2520	1520	1530	2130	692	897	871	1120
30	1130	1080	1080	2080	---	1520	1530	2140	820	892	871	1120
31	1130	---	1080	2080	---	1520	---	2150	---	894	871	---
TOTAL	34620	29704	33520	57770	68500	58320	45890	59000	26604	26950	26528	31284
MEAN	1117	990	1081	1864	2362	1881	1530	1903	887	869	856	1043
MAX	1130	1180	1090	2080	2520	2530	1530	2150	1850	897	897	1130
MIN	1100	600	1070	1080	2080	1520	1520	1540	642	820	750	869
AC-FT	68670	58920	66490	114600	135900	115700	91020	117000	52770	53460	52620	62050
(†)	1750	0	0	0	0	2010	5450	22350	29210	29060	21460	13670

CAL YR 1983 TOTAL 554422 MEAN 1519 MAX 2860 MIN 600 AC-FT 1100000
WTR YR 1984 TOTAL 498690 MEAN 1363 MAX 2530 MIN 600 AC-FT 989200

(†) DISCHARGE, IN ACRE-FEET, THROUGH NAVAJO INDIAN IRRIGATION TUNNEL.

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)
NOV 01...	1130	1180	295	263	8.4	8.3	17.0	9.0	3.5	13.1	100
JAN 04...	1300	1230	215	237	8.2	8.0	8.0	7.0	7.1	13.0	90
MAR 12...	1115	2060	240	244	8.8	8.3	16.0	7.5	5.1	13.2	93
MAY 01...	0900	1500	260	283	7.7	8.2	16.5	6.0	7.0	12.0	99
JUL 09...	1330	828	240	263	8.2	8.4	33.0	9.5	2.0	12.8	110
SEP 04...	1200	839	250	266	8.3	8.3	20.5	11.5	3.8	12.4	100

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV 01...	26	30	6.7	14	.6	1.9	94	.000	80	50	2.2
JAN 04...	19	27	5.5	11	.5	1.6	83	2.0	--	42	1.8
MAR 12...	0	28	5.6	12	.6	1.8	69	23	--	36	1.9
MAY 01...	20	29	6.5	14	.6	1.7	97	.000	--	50	2.1
JUL 09...	30	33	6.5	13	.6	1.6	89	4.0	89	42	2.0
SEP 04...	21	30	6.1	13	.6	2.1	--	--	--	48	2.0

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 01...	.20	10	170	160	--	--	--	--	--	--
JAN 04...	.20	12	148	150	--	--	--	--	--	--
MAR 12...	.20	9.9	151	180	<.10	.020	.18	.020	3.7	.30
MAY 01...	.20	9.9	200	160	--	--	--	--	--	--
JUL 09...	.20	10	161	160	--	--	--	--	--	--
SEP 04...	.20	9.8	172	160	<.10	<.010	--	.020	4.4	.20

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
MAR 12...	1115	<1	<1	<100	75	1	<1	20	20	<1
SEP 04...	1200	<1	<1	<100	67	<1	1	<10	<10	<1

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
MAR										
12...	<1	8	1	430	16	10	<1	<10	4	.2
SEP										
04...	<1	4	<1	300	13	1	1	20	8	<.1

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAR									
12...	.1	<1	1	<1	<1	<1	<1	10	10
SEP									
04...	<.1	15	<1	<1	<1	<1	<1	30	6

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP			
04...	1200	6	2

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
01...	1130	1180	9.0	48	153	85
JAN						
04...	1300	1230	7.0	49	163	42
MAR						
12...	1115	2060	7.5	14	78	73
JUL						
09...	1330	828	9.5	9	20	94
SEP						
04...	1200	839	11.5	5	11	70

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09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi downstream from Florida River, 2.5 mi upstream from Colorado-New Mexico State line, 8.5 mi north of Cedar Hill, and at mile 32.9.

DRAINAGE AREA.--1,090 mi^2, approximately.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Altitude of gage is 5,960 ft, from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft and 1.36 ft higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 20,000 acres above station. During water years 1944-49, Twin Rocks Canal diverted above station for irrigation below. Slight regulation by Lemon Dam about 30 mi upstream on Florida River since November 1963 (capacity, 40,100 acre-ft). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, 906 ft^3/s, 656,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft^3/s June 19, 1949, gage height, 11.45 ft; minimum, 63 ft^3/s Jan. 21, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
May 24	2315	*8010	9.34	June 15	1200	4030	7.39

Minimum daily discharge, 242 ft^3/s Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	885	358	313	310	270	332	462	826	4570	2740	1300	1160
2	915	327	315	286	272	355	431	867	4340	2690	1190	1300
3	781	342	302	266	275	373	405	888	3860	2710	1110	1090
4	706	324	296	270	277	382	428	930	3350	2470	1090	954
5	654	328	319	294	287	364	444	1140	2980	2310	1050	865
6	608	317	306	290	286	350	483	1260	2710	2170	1120	795
7	596	323	285	294	293	360	544	1300	2390	2040	1210	753
8	599	334	300	298	300	360	565	1380	2440	1910	1050	690
9	573	378	328	302	304	405	667	1470	2080	1960	954	654
10	563	342	328	298	311	450	703	1750	1900	1980	954	612
11	568	332	324	286	316	534	668	2200	1950	1980	918	630
12	577	337	311	294	302	516	667	3020	2200	1730	886	672
13	529	328	298	278	296	510	679	3760	2370	1680	851	594
14	504	328	300	314	320	540	721	4080	3580	1710	830	564
15	490	332	307	306	316	588	792	4920	3910	1730	844	552
16	483	310	296	290	305	504	944	5090	3820	1640	872	600
17	462	314	287	272	305	510	1160	4600	3410	1500	936	704
18	443	350	306	258	311	486	1210	4690	3070	1400	1130	648
19	436	355	310	253	300	462	1360	4460	2800	1280	1040	654
20	422	328	314	250	291	462	1350	4670	2770	1330	1010	654
21	409	342	314	260	287	528	1150	5500	3010	1330	1100	630
22	398	350	310	270	306	630	992	6190	3290	1330	1160	642
23	389	304	323	280	312	636	945	6940	3160	1260	1310	630
24	373	322	306	290	301	588	987	7410	2870	1210	1740	642
25	402	344	314	310	306	558	1180	7640	2920	1260	1640	725
26	382	359	350	310	304	576	1160	7430	3380	1320	1630	690
27	374	333	382	309	256	546	1020	7110	3490	1240	1430	654
28	370	330	373	305	242	516	959	6600	3380	1240	1240	690
29	386	319	302	290	282	460	913	6210	3070	1310	1110	648
30	340	310	319	282	---	450	855	5690	3020	1420	999	606
31	337	---	314	280	---	470	---	5120	---	1470	1030	---
TOTAL	15954	10000	9752	8895	8533	14801	24844	125141	92090	53350	34734	21702
MEAN	515	333	315	287	294	477	828	4037	3070	1721	1120	723
MAX	915	378	382	314	320	636	1360	7640	4570	2740	1740	1300
MIN	337	304	285	250	242	332	405	826	1900	1210	830	552
AC-FT	31640	19830	19340	17640	16930	29360	49280	248200	182700	105800	68890	43050

CAL YR 1983 TOTAL 438508 MEAN 1201 MAX 6470 MIN 242 AC-FT 869800
WTR YR 1984 TOTAL 419796 MEAN 1147 MAX 7640 MIN 242 AC-FT 832700

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09364500 ANIMAS RIVER AT FARMINGTON, NM
(National stream-quality accounting network station)

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¼SW¼ sec.15, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080104, in Boyd City Park, on right bank 900 ft upstream from bridge on Miller Ave., 0.4 mi downstream from bridge on U.S. Highway 64 in Farmington, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--1,360 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1904 to October 1905 (published as "near Farmington"), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1931. WSP 1313: 1913.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft, from topographic map. Prior to Nov. 1, 1905, non-recording gage at old bridge 0.1 mi upstream at different datum. Sept. 17, 1912, to Oct. 4, 1938, water-stage recorder at site 0.8 mi downstream at lower datums (datum lowered 2.0 ft Aug. 15, 1927, and raised 0.2 ft Dec. 16, 1929). Oct. 5, 1938 to Nov. 1, 1973 at site 900 ft downstream at datum 1.74 ft lower.

REMARKS.--Water-discharge records good except those for winter period, which are fair. Diversions for irrigation of about 30,000 acres above station.

AVERAGE DISCHARGE.--73 years, 918 ft^3/s, 665,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 25,000 ft^3/s June 29, 1927, gage height, 8.5 ft, site and datum then in use, from rating curve extended above 10,000 ft^3/s; minimum, 1.0 ft^3/s Aug. 11, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft, 1904-5 site and datum (discharge, about 19,000 ft^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,560 ft^3/s at 0015 hours May 25, gage height, 9.12 ft, no other peak above base of 4,000 ft^3/s; minimum daily discharge, 266 ft^3/s Jan. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	826	323	352	380	309	307	494	759	4260	2430	1070	1230
2	1040	324	384	366	304	334	481	726	4230	2300	931	1190
3	960	311	415	336	306	356	427	754	3750	2340	830	1070
4	858	316	422	285	317	375	415	742	3350	2210	791	833
5	788	304	403	308	323	368	439	932	2930	2030	815	764
6	710	309	332	332	325	349	472	1060	2820	1890	927	707
7	663	299	328	332	326	347	517	1130	2360	1720	1160	659
8	657	321	349	332	332	346	550	1200	2480	1650	959	602
9	637	338	362	328	335	365	618	1330	2100	1610	815	548
10	606	355	375	324	340	411	749	1630	1800	1660	766	502
11	605	333	366	316	344	478	664	2150	1730	1670	754	476
12	607	338	370	308	336	552	691	2920	1920	1480	736	540
13	553	345	362	312	323	520	658	3650	2300	1380	765	494
14	517	335	316	320	334	551	700	4060	3050	1460	668	422
15	493	342	375	336	344	591	775	4810	3520	1420	654	396
16	480	350	353	312	330	589	860	5230	3540	1440	658	399
17	476	327	349	285	338	539	1090	4760	3290	1320	716	527
18	456	365	353	266	335	506	1360	4760	2890	1190	874	535
19	425	370	366	266	330	492	1550	4590	2590	1080	951	464
20	413	360	362	285	319	475	1550	4680	2500	1050	893	499
21	398	379	362	285	312	499	1310	5430	2670	1080	882	460
22	386	387	336	312	314	611	1110	6180	2890	1060	1160	470
23	382	358	353	332	329	703	997	6770	2880	1030	1290	489
24	370	339	353	345	323	624	943	7170	2610	962	2040	445
25	369	369	362	341	321	587	1010	7020	2530	990	1680	558
26	372	382	420	349	324	644	1120	6480	2920	1060	1530	568
27	353	372	456	336	303	614	987	6160	3130	1060	1400	555
28	355	352	450	332	276	540	928	5750	3030	1000	1150	549
29	344	341	380	312	271	494	894	5350	2720	1040	986	524
30	351	348	375	304	---	483	817	4930	2630	1090	868	466
31	322	---	340	296	---	493	---	4590	---	1200	867	---
TOTAL	16772	10292	11481	9873	9323	15143	25176	117763	85420	44902	30586	17941
MEAN	541	343	370	318	321	488	839	3799	2847	1448	987	598
MAX	1040	387	456	380	344	703	1550	7170	4260	2430	2040	1230
MIN	322	299	316	266	271	307	415	726	1730	962	654	396
AC-FT	33270	20410	22770	19580	18490	30040	49940	233600	169400	89060	60670	35590

CAL YR 1983 TOTAL 412011 MEAN 1129 MAX 5810 MIN 268 AC-FT 817200
WTR YR 1984 TOTAL 394672 MEAN 1078 MAX 7170 MIN 266 AC-FT 782800

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1941 to current year.
WATER TEMPERATURES: December 1950 to current year.
SUSPENDED-SEDIMENT DISCHARGES: December 1950 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,980 microsiemens Aug. 19, 1944; minimum daily, 146 microsiemens July 11, 1975.
WATER TEMPERATURES: Maximum daily, 32.0°C Aug. 26, 1966 and July 16, 1977; minimum daily, 0.0°C on many days during winter months each year.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 36,800 mg/L July 23, 1954; minimum daily mean, 1 mg/L on several days during Sept. of 1956, 1958, and 1974.
SEDIMENT LOADS: Maximum daily, 337,000 tons July 23, 1954; minimum daily, less than .50 ton on many days during 1955-57, 1959-60, 1963, 1972, 1974, and 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 980 microsiemens Dec. 26; minimum daily, 203 microsiemens May 29.
WATER TEMPERATURES: Maximum daily, 25.0°C Aug. 2, 3, 16; minimum daily, 0.0°C several days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 24,600 mg/L Sept. 1; minimum daily mean, 15 mg/L Dec. 24.
SEDIMENT LOADS: Maximum daily, 84,300 tons Sept. 1; minimum daily, 13 tons Feb. 28.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
NOV										
03...	1100	305	675	651	8.4	8.2	19.5	10.5	1.4	10.4
FEB										
01...	1200	270	675	665	8.3	8.2	5.0	1.0	12	13.7
MAY										
14...	1500	3850	260	238	7.9	8.0	34.5	15.0	14	9.2
SEP										
05...	0800	805	430	430	8.2	8.2	20.5	15.0	34	8.2

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
NOV										
03...	290	110	94	14	33	.9	2.7	200	9.0	181
FEB										
01...	290	140	94	14	30	.8	2.7	170	6.0	--
MAY										
14...	100	26	33	4.7	4.1	.2	1.1	93	.000	--
SEP										
05...	170	40	53	8.1	16	.6	2.3	140	7.0	110

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV										
03...	180	18	.40	6.3	447	470	<.10	.050	.040	.010
FEB										
01...	180	20	.40	7.6	436	440	.29	.090	.060	.030
MAY										
14...	34	2.3	.20	5.2	132	130	.16	.070	.450	.020
SEP										
05...	92	8.6	.40	7.6	275	270	.19	.030	.100	.050

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
NOV											
03...	1100	10	1	89	<.5	<1	<1	<3	2	8	<1
FEB											
01...	1200	<10	1	79	<.5	<1	<1	<3	2	8	<1
MAY											
14...	1500	50	<1	60	<1.0	1	<1	<3	3	51	<1
SEP											
05...	0800	20	<1	120	<1.0	<1	<1	<3	<1	4	2

DATE	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV										
03...	48	52	.5	<10	2	1	<1	1100	<6	12
FEB										
01...	50	89	.4	<10	3	<1	<1	1	<6	29
MAY										
14...	13	28	<.1	<10	<1	<1	<1	300	<6	18
SEP										
05...	28	18	<.1	<10	<1	<1	<1	720	<6	9

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
03...	1100	22	51
FEB			
01...	1200	0	23
MAY			
14...	1500	730	850
SEP			
05...	0800	150	210

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
25...	0930	361	9.0	1070	1040	--	--	--
NOV								
03...	1100	305	10.5	23	19	--	--	--
DEC								
28...	2030	450	2.0	942	1140	--	--	--
FEB								
01...	1200	270	1.0	48	35	--	--	--
MAR								
02...	1045	350	4.5	93	88	--	--	--
APR								
02...	1030	486	5.0	209	274	--	--	--
MAY								
14...	1500	3850	15.0	1430	14900	7	11	20
AUG								
06...	1900	940	22.0	1070	2720	--	--	--
13...	1800	724	24.0	1970	3850	40	64	91
SEP								
01...	0930	1330	17.0	28300	102000	39	57	86
05...	0800	805	15.0	257	559	--	--	--

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SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT								
25...	--	--	--	--	99	99	100	--
NOV								
03...	--	--	--	--	85	--	--	--
DEC								
28...	--	--	--	--	99	99	99	100
FEB								
01...	--	--	--	--	66	--	--	--
MAR								
02...	--	--	--	--	82	--	--	--
APR								
02...	--	--	--	--	92	--	--	--
MAY								
14...	43	61	82	100	--	--	--	--
AUG								
06...	--	--	--	--	99	100	--	--
13...	--	--	--	--	100	--	--	--
SEP								
01...	99	100	--	--	--	--	--	--
05...	--	--	--	--	74	90	99	100

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	602	684	737	695	692	697	612	490	215	238	---	490
2	520	747	729	734	683	591	615	490	220	243	418	---
3	497	755	730	703	684	602	628	483	224	265	418	422
4	525	735	769	739	691	594	595	454	236	256	448	476
5	528	731	738	732	678	611	629	450	263	284	468	484
6	513	767	737	713	679	605	587	423	266	299	466	497
7	583	759	765	704	677	609	528	415	292	301	466	547
8	580	762	772	705	663	603	557	414	309	294	438	552
9	571	759	742	704	668	606	520	412	317	291	494	579
10	580	763	742	712	659	598	516	391	329	320	511	528
11	576	725	732	696	645	562	517	---	335	307	489	596
12	577	765	738	705	669	551	499	352	342	311	488	581
13	572	737	748	718	674	557	488	264	251	329	530	614
14	612	739	748	688	662	554	487	274	241	347	531	619
15	610	725	739	683	662	567	350	236	211	365	513	624
16	630	744	740	686	671	575	437	229	213	333	522	637
17	620	736	746	724	653	---	368	243	233	367	484	625
18	610	823	732	743	642	574	369	250	234	385	492	581
19	646	750	743	843	654	582	---	249	237	407	465	580
20	660	770	716	779	660	576	380	243	236	437	463	567
21	625	781	713	786	658	581	376	232	236	381	447	565
22	---	784	734	760	677	550	413	225	234	397	453	592
23	660	761	738	756	675	494	413	219	242	391	451	591
24	673	779	742	769	661	485	411	230	234	390	412	543
25	797	712	963	738	648	480	376	224	231	407	343	545
26	685	722	980	736	634	521	374	204	207	431	348	540
27	669	762	744	730	653	522	383	205	217	400	399	567
28	701	763	726	716	691	519	392	207	221	421	402	585
29	717	758	747	722	697	537	439	203	219	359	419	562
30	684	753	759	730	---	531	460	211	233	352	451	610
31	701	---	650	724	---	591	---	217	---	350	354	---
MEAN	617	752	753	728	668	568	473	305	249	344	453	562

WTR YR 1984 MEAN 540 MAX 980 MIN 203

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	11.0	3.0	3.0	4.0	5.0	7.0	12.0	13.0	16.5	---	17.0
2	12.5	11.0	3.0	2.5	4.0	7.5	10.0	11.5	15.0	17.0	25.0	---
3	11.0	10.0	5.0	1.0	4.5	9.0	11.0	12.0	15.0	18.0	25.0	19.0
4	12.0	10.0	4.0	1.0	5.5	8.0	13.0	14.0	15.0	16.5	24.0	18.0
5	14.5	13.0	2.0	4.0	2.5	5.0	12.0	16.0	13.5	17.5	23.0	22.5
6	17.0	11.0	1.0	4.0	1.0	6.0	11.5	10.0	15.0	17.5	22.0	17.5
7	18.0	10.0	2.0	3.0	3.5	8.0	13.5	11.5	12.5	19.0	21.0	21.0
8	16.0	8.0	2.0	2.5	5.0	9.0	13.5	14.0	15.0	17.0	19.5	17.5
9	17.0	6.0	1.0	1.5	5.0	10.0	8.0	14.0	14.0	18.0	21.0	17.0
10	18.0	7.0	1.5	2.0	2.0	11.0	10.0	16.0	16.0	18.0	21.0	18.0
11	15.0	10.0	3.0	1.5	1.5	8.0	10.0	---	15.5	19.0	22.0	20.0
12	14.0	7.0	3.0	.0	1.0	7.0	13.0	15.0	17.0	20.5	21.0	20.0
13	16.0	8.0	3.0	.0	7.5	6.5	13.5	15.0	16.5	---	24.0	19.0
14	14.5	8.0	1.0	.0	6.0	9.0	12.0	14.0	14.5	18.0	24.5	23.0
15	9.0	7.0	1.0	.0	6.0	12.0	14.0	11.0	14.5	21.0	24.5	21.0
16	11.0	8.0	1.0	.0	7.0	11.0	14.0	10.0	15.0	21.0	25.0	22.0
17	14.0	7.5	1.0	.0	6.0	---	13.0	15.5	16.0	23.0	23.0	22.0
18	15.5	6.0	1.5	---	3.5	6.5	13.0	15.0	14.0	23.0	21.0	18.0
19	14.0	5.0	1.0	---	6.0	8.0	---	14.0	14.0	23.0	21.0	16.0
20	14.5	6.0	1.0	5.0	4.5	13.5	8.0	13.5	16.0	23.0	23.5	18.0
21	10.5	6.0	.0	.0	3.0	14.0	10.0	13.5	14.0	23.0	19.5	15.5
22	---	4.0	.0	.0	3.5	11.0	6.5	11.5	16.0	20.0	20.0	17.0
23	13.0	2.0	.0	.0	3.0	10.0	14.5	14.5	16.0	19.0	21.0	17.0
24	14.0	5.0	.5	.0	4.0	7.5	11.0	15.0	16.0	23.0	17.0	17.5
25	9.0	1.0	2.0	1.0	4.0	6.0	9.5	13.0	16.0	20.0	20.0	16.0
26	9.0	1.0	3.0	1.5	2.0	4.5	10.0	15.5	14.0	21.0	18.0	14.0
27	11.0	.0	2.0	1.5	2.5	5.5	7.0	16.0	20.0	19.0	17.5	16.0
28	11.0	.0	2.0	1.0	9.0	6.0	6.0	---	20.0	20.0	22.0	15.5
29	12.0	1.0	1.0	1.0	6.0	12.5	10.0	12.5	17.5	19.0	20.0	15.0
30	12.0	1.0	.0	5.0	---	10.0	10.0	13.0	17.0	19.5	24.0	15.5
31	13.0	---	3.0	4.0	---	10.0	---	13.5	---	20.0	18.0	---
MEAN	13.5	6.5	2.0	1.5	4.0	8.5	11.0	13.5	15.5	19.5	21.5	18.0

WTR YR 1984 MEAN 11.5 MAX 25.0 MIN .0

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	3360	7490	46	40	38	36	47	48	65	54	38	31
2	1390	3900	49	43	80	83	50	49	69	57	106	96
3	623	1610	28	24	84	94	65	59	78	64	184	177
4	224	519	46	39	436	497	48	37	68	58	195	197
5	190	404	27	22	134	146	34	28	66	58	140	139
6	230	441	28	23	82	74	30	27	65	57	88	83
7	170	304	72	58	49	43	32	29	78	69	73	68
8	109	193	43	37	46	43	39	35	81	73	83	78
9	215	370	56	51	39	38	41	36	66	60	110	108
10	156	255	40	38	40	40	42	37	94	86	405	449
11	99	162	26	23	31	31	41	35	67	62	1130	1460
12	83	136	28	26	25	25	34	28	33	30	546	814
13	64	96	27	25	24	23	44	37	35	31	694	974
14	66	92	21	19	33	28	62	54	50	45	525	781
15	59	79	30	28	27	27	53	48	48	45	477	761
16	61	79	25	24	26	25	54	45	30	27	650	1030
17	40	51	30	26	22	21	91	70	27	25	587	854
18	50	62	179	176	23	22	67	48	40	36	464	634
19	40	46	96	96	26	26	124	89	23	20	354	470
20	35	39	58	56	19	19	154	119	29	25	467	599
21	25	27	156	160	21	21	149	115	32	27	410	552
22	35	36	207	216	18	16	100	84	62	53	402	663
23	31	32	86	83	22	21	82	74	21	19	235	446
24	32	32	71	65	15	14	77	72	18	16	193	325
25	34	34	44	44	728	712	59	54	23	20	210	333
26	43	43	40	41	4080	4630	52	49	22	19	80	139
27	45	43	46	46	1270	1560	154	140	22	18	66	109
28	44	42	48	46	976	1190	146	131	17	13	85	124
29	34	32	36	33	565	580	88	74	35	26	116	155
30	28	27	38	36	79	80	76	62	---	---	88	115
31	71	62	---	---	57	52	66	53	---	---	112	149
TOTAL	---	16738	---	1644	---	10217	---	1866	---	1193	---	12913

SAN JUAN RIVER BASIN

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	111	148	81	166	317	3650	78	512	46	133	24600	84300
2	142	184	72	141	222	2540	84	522	56	141	4560	14700
3	49	56	94	191	170	1720	76	480	34	76	675	1950
4	58	65	200	401	145	1310	63	376	39	83	298	670
5	46	55	301	757	79	625	67	367	308	678	219	452
6	57	73	171	489	112	853	58	296	1170	2930	172	328
7	164	229	179	546	96	612	45	209	710	2220	132	235
8	152	226	236	765	85	569	73	325	203	526	109	177
9	143	239	194	697	47	266	39	170	54	119	129	191
10	142	287	287	1260	61	296	38	170	68	141	103	140
11	117	210	1160	4730	86	402	23	104	51	104	98	126
12	151	282	2360	18600	57	306	43	172	611	1210	197	287
13	147	261	1180	11600	79	491	41	153	2830	5850	524	699
14	162	306	1170	12800	91	749	89	351	167	301	162	185
15	656	1370	1450	18800	139	1320	84	322	107	189	109	117
16	603	1400	844	11900	96	918	121	470	123	219	78	84
17	686	2020	765	9830	78	693	336	1200	354	684	215	306
18	634	2330	613	7880	60	468	91	292	666	1570	63	91
19	638	2670	354	4390	51	357	71	207	254	652	91	114
20	325	1360	373	4710	44	297	96	272	261	629	66	89
21	202	714	444	6580	64	461	71	207	375	893	50	62
22	175	524	440	7340	83	648	62	177	707	2850	51	65
23	143	385	472	8630	85	661	67	186	3500	12200	47	62
24	268	682	517	10000	60	423	77	200	2920	17800	71	85
25	199	543	479	9080	82	560	278	743	1290	5850	80	121
26	120	363	429	7510	129	1020	726	2080	423	1750	79	121
27	92	245	393	6540	118	997	96	275	319	1210	69	103
28	70	175	325	5050	117	957	81	219	329	1020	55	82
29	92	222	274	3960	89	654	87	244	253	674	43	61
30	114	231	161	2140	66	469	93	274	190	445	24	30
31	---	---	156	1930	---	---	61	198	670	1570	---	---
TOTAL	---	17875	---	181413	---	25292	---	11773	---	64717	---	106033

TOTAL LOAD FOR YEAR: 451674 TONS.

BEST COPY AVAILABLE

09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW¼SE¼ sec.17, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on left bank 360 ft downstream from highway bridge on State Highway 371 in Farmington, 4,000 ft downstream from Animas River, 2.3 mi upstream from La Plata River, and at mile 251.4.

DRAINAGE AREA.--7,240 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to December 1904, January 1905 to September 1906 (gage heights and discharge measurements only), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Discharge records for January to December 1905, published in WSP 175, are unreliable and should not be used.

REVISED RECORDS.--WSP 1119: Drainage area. WSP 1243: 1938. WSP 1313: 1905, 1914. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,230.37 ft National Geodetic Vertical Datum of 1929. See WSP 1313 or 1733 for history of changes prior to Nov. 19, 1933.

REMARKS.--Water-discharge records good. Since June 1962 flow is partly controlled by operation of Navajo Reservoir (station 09355100) 50 mi upstream. Diversions above station for irrigation of about 86,000 acres, 4,000 of which is irrigated by Farmers Mutual ditch which diverts from Animas River and bypasses this station; ditch flow not included in record. At times this ditch may be supplied partly or entirely by diversion from San Juan River below this station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--72 years (water years 1913-84), 2,354 ft³/s, 1,705,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 68,000 ft³/s June 29, 1927, gage height, 10.2 ft, site and datum then in use, from rating curve extended above 37,000 ft³/s; minimum, 14 ft³/s Aug. 22, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911. Flood of Sept. 6, 1909, reached a stage of about 12.3 ft, site and datum in use May to September 1906.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,000 ft³/s and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 26	0045	*9330	6.33	Aug. 22	2245	8360	5.46

Minimum discharge, 819 ft³/s Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2410	1380	1320	1430	2380	2810	1930	2120	6080	3130	1990	2240
2	2410	928	1430	1420	2390	2790	1930	2070	5560	2930	1820	2030
3	2010	848	1490	1390	2390	2950	1870	2080	4810	2950	1640	1860
4	1810	855	1470	1470	2390	3020	1850	2060	4430	2810	1610	1680
5	1760	837	1400	1490	2390	2950	1870	2230	4620	2620	1670	1520
6	1730	827	1340	1890	2440	2840	1900	2310	3670	2480	2860	1350
7	1680	819	1360	2110	2720	2800	1970	2350	2920	2310	1960	1260
8	1660	1280	1440	2130	2740	2600	1990	2390	2990	2230	1720	1200
9	1650	1450	1470	2130	2790	2510	2070	2450	2510	2210	1580	1170
10	1610	1460	1480	2120	2820	2500	2200	2890	2240	2290	1460	1080
11	1600	1310	1470	2120	2860	2620	2140	3320	2140	2280	1390	1280
12	1590	1320	1480	2130	2830	2640	2150	4110	2160	2080	1490	1340
13	1620	1310	1460	2270	2820	2660	2120	4960	2480	2030	1500	1270
14	1610	1300	1440	2320	2840	2670	2150	5330	[illegible]280	2150	1330	1190
15	1550	1320	1480	2340	2860	2710	2220	6100	4000	2070	1350	1150
16	1520	1350	1460	2310	2820	2310	2320	6490	4160	2080	1410	1140
17	1480	1310	1420	2340	2850	2200	2490	6070	3930	1970	1420	1500
18	1470	1410	1430	2290	2830	2150	2710	6130	3380	1830	3410	1310
19	1430	1390	1460	2210	2820	2120	2930	5810	2980	1690	1740	1210
20	1430	1420	1450	2260	2820	2090	3010	5810	2800	1630	1720	1260
21	1450	1510	1470	2300	2800	2100	2760	6600	2960	1670	1620	1200
22	1450	1440	1420	2330	2800	2160	2530	7290	3200	1630	2120	1210
23	1450	1380	1470	2340	2820	2230	2420	7980	3320	1660	2500	1220
24	1450	1350	1460	2360	2810	2160	2290	8670	3110	1600	3050	1190
25	1440	1400	1480	2360	2870	2100	2360	8980	3110	1610	2700	1340
26	1490	1430	1690	2380	2890	2180	2510	8870	3410	1780	2460	1440
27	1440	1370	1860	2380	2840	2180	2440	8600	3620	1770	2350	1460
28	1440	1330	1950	2370	2820	2040	2300	8140	3520	2200	2010	1460
29	1430	1310	1580	2370	2820	1970	2280	7610	3200	2310	1770	1420
30	1470	1310	1410	2380	---	1960	2200	7070	3220	2380	1650	1360
31	1410	---	1390	2380	---	1970	---	6570	---	2250	1570	---
TOTAL	49950	37954	45930	66120	79270	74990	67910	163460	103210	66630	58870	41290
MEAN	1611	[illegible]	1482	2133	2733	2419	2264	5273	3440	2149	189[illegible]	1376
MAX	2410	1510	1950	2380	2890	3020	3010	8980	6080	3130	3410	2240
MIN	1410	819	1320	1390	2380	1960	1850	2060	2140	1600	1330	1080
AC-FT	99080	75280	91100	131100	157200	148700	134700	324200	204700	132200	116800	81900

CAL YR 1983 TOTAL 922369 MEAN 2527 MAX 7860 MIN 819 AC-FT 1830000
WTR YR 1984 TOTAL 855584 MEAN 2338 MAX 8980 MIN 819 AC-FT 1697000

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¼SE¼ sec.10, T.32 N., R.13 W., La Plata County, Colorado, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State line, 0.2 mi downstream from Ponds Arroyo, and 4.8 mi north of La Plata, NM.

DRAINAGE AREA.--331 mi^2.

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934(M), 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 5,975.15 ft National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 15,000 acres, most of which are above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--64 years, 35.3 ft^3/s, 25,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft^3/s Aug. 24, 1927, gage height, 11.36 ft, present datum, from rating curve extended above 750 ft^3/s on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 437 ft^3/s at 2030 hours Aug. 23, gage height, 2.98 ft; minimum daily, 3.5 ft^3/s Sept. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	15	24	26	24	28	95	73	68	30	5.1	38
2	16	15	26	23	23	31	87	56	91	25	4.8	10
3	14	15	26	22	23	35	80	49	70	24	5.4	10
4	14	14	24	23	24	32	82	41	74	26	5.8	6.2
5	14	14	23	23	26	31	82	45	80	24	5.8	6.2
6	13	15	21	21	26	28	90	40	78	22	5.4	8.0
7	13	15	23	21	24	30	101	40	58	21	14	6.2
8	13	16	25	21	22	33	111	42	51	20	7.5	6.2
9	13	17	26	21	21	36	131	46	38	20	5.8	6.2
10	14	16	26	20	23	40	124	69	39	25	4.2	4.8
11	14	15	25	21	21	49	128	111	43	19	5.1	16
12	14	15	25	19	19	48	117	166	48	16	14	17
13	14	16	24	18	21	50	122	200	55	15	12	6.6
14	15	16	23	22	23	55	123	139	68	13	3.8	5.8
15	15	16	26	20	20	67	145	171	67	10	6.2	5.8
16	15	16	26	16	19	77	175	162	70	10	6.6	6.6
17	15	16	27	18	23	86	212	116	67	8.5	6.2	6.2
18	15	21	25	14	21	88	232	118	69	8.0	8.0	5.1
19	15	20	26	16	19	88	242	111	61	8.5	8.0	4.8
20	15	19	26	18	19	96	208	134	55	9.0	6.2	6.2
21	15	21	24	18	20	106	160	173	52	7.5	5.8	6.2
22	16	21	29	18	23	124	132	202	47	7.0	5.8	4.8
23	16	19	26	18	23	117	111	238	43	5.1	43	4.4
24	16	18	24	19	23	118	95	230	43	6.6	46	3.5
25	15	20	27	20	26	124	103	182	44	7.0	14	4.4
26	14	20	31	22	22	120	107	173	45	7.0	10	5.8
27	13	18	35	22	23	110	87	129	40	5.8	12	6.6
28	13	18	31	22	23	99	87	95	36	7.5	14	5.8
29	14	20	21	23	26	92	80	60	31	7.0	14	4.8
30	14	22	18	23	---	97	80	67	34	13	13	5.4
31	15	---	20	24	---	90	---	55	---	5.4	22	---
TOTAL	449	519	783	633	650	2225	3729	3533	1665	432.9	339.5	233.6
MEAN	14.5	17.3	25.3	20.4	22.4	71.8	124	114	55.5	14.0	11.0	7.79
MAX	17	22	35	26	26	124	242	238	91	30	46	38
MIN	13	14	18	14	19	28	80	40	31	5.1	3.8	3.5
AC-FT	891	1030	1550	1260	1290	4410	7400	7010	3300	859	673	463

CAL YR 1983 TOTAL 26176.7 MEAN 71.7 MAX 482 MIN 2.9 AC-FT 51920
WTR YR 1984 TOTAL 15192.0 MEAN 41.5 MAX 242 MIN 3.5 AC-FT 30130

09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in NE¼SW¼ sec.7, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on right bank 1,300 ft upstream from bridge on U.S. Highway 550 in Farmington, and 1,800 ft upstream from mouth.

DRAINAGE AREA.--583 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.--WSP 1243: 1944-45. WSP 1313: 1943-44(M), 1946-50(M). WSP 1733: 1951(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,214 ft, from river-profile map. Prior to July 28, 1978 at altitude 1.0 ft higher.

REMARKS.--Water-discharge records good except those below 10 ft^3/s, which are poor. Diversions for irrigation of about 24,000 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 27.2 ft^3/s, 19,710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, that of Sept. 10, 1939, "discharge not determined", gage height, 6.03 ft, site and datum then in use; no flow for long periods in some years.
Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft^3/s at 2245 hours Aug. 6, gage height, 5.05 ft; minimum daily, 1.3 ft^3/s Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	7.1	30	40	29	35	69	21	6.8	3.2	3.1	28
2	15	6.2	36	35	30	37	78	13	14	3.1	2.9	6.9
3	9.3	6.6	37	33	35	38	70	8.9	13	2.5	2.8	3.7
4	8.0	7.2	41	34	33	39	59	6.8	11	2.3	2.8	3.0
5	7.6	8.8	33	35	33	38	54	5.5	11	2.1	2.9	2.6
6	10	8.8	24	34	33	36	58	5.0	20	2.0	125	2.0
7	13	12	30	33	32	36	72	4.5	13	2.1	69	1.6
8	14	15	43	33	30	37	82	4.5	9.6	2.9	33	1.6
9	18	18	36	33	30	45	94	4.5	9.2	4.0	7.1	1.5
10	19	20	32	31	30	62	100	4.3	8.0	3.7	5.1	1.3
11	19	21	32	32	29	76	87	7.6	6.8	3.1	3.6	1.5
12	18	22	32	28	27	76	83	55	4.8	2.7	3.6	2.5
13	16	28	31	36	29	67	80	89	5.1	2.9	69	2.2
14	16	30	31	35	30	59	80	70	8.4	3.0	6.0	1.9
15	16	31	34	31	29	71	83	59	12	2.6	2.9	1.8
16	14	33	32	29	29	80	127	83	13	9.8	2.2	1.9
17	13	32	36	29	32	91	188	43	12	16	1.8	4.5
18	13	46	36	24	33	94	196	28	8.5	4.0	2.9	3.0
19	13	35	34	22	30	92	208	29	6.1	3.1	2.7	2.1
20	12	30	34	22	29	92	197	34	5.1	2.7	3.3	1.6
21	12	34	36	23	29	101	142	68	4.5	2.6	4.5	1.7
22	12	32	31	25	31	119	88	105	4.8	2.6	29	1.8
23	12	30	42	23	30	115	67	159	4.1	2.6	146	1.8
24	11	26	31	22	30	106	59	192	3.5	2.6	90	1.9
25	10	29	34	22	34	109	57	144	3.4	2.6	7.6	1.8
26	9.6	27	33	20	32	116	58	117	3.7	2.6	5.0	2.5
27	9.7	27	34	25	32	108	49	79	3.8	2.8	4.3	2.5
28	8.5	32	33	25	32	91	34	42	3.1	3.0	4.0	2.4
29	6.6	34	33	23	33	81	35	25	2.9	3.0	3.6	2.5
30	5.6	31	37	25	---	81	28	10	2.8	3.0	3.2	2.6
31	6.6	---	45	25	---	85	---	9.6	---	3.2	28	---
TOTAL	385.5	719.7	1063	887	895	2313	2682	1526.2	234.0	108.4	676.9	96.7
MEAN	12.4	24.0	34.3	28.6	30.9	74.6	89.4	49.2	7.80	3.50	21.8	3.22
MAX	19	46	45	40	35	119	208	192	20	16	146	28
MIN	5.6	6.2	24	20	27	35	28	4.3	2.8	2.0	1.8	1.3
AC-FT	765	1430	2110	1760	1780	4590	5320	3030	464	215	1340	192

CAL YR 1983 TOTAL 22407.13 MEAN 61.4 MAX 574 MIN .42 AC-FT 44440
WTR YR 1984 TOTAL 11587.40 MEAN 31.7 MAX 208 MIN 1.3 AC-FT 22980

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Lat 36°44'25", long 108°24'09", in NW¼SE¼ sec. 10, T.29 N., R.15W., San Juan County, Hydrologic Unit 14080105, on right bank 300 ft downstream from Four Corners Powerplant highway bridge, 0.4 mi west of Fruitland, 10 mi downstream from La Plata River, 14.0 mi upstream from Chaco River, and at mile 239.

DRAINAGE AREA.--8,010 mi^2, approximately.

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)
NOV 04...	0900	860	560	565	8.3	7.8	12.0	9.0	30	10.0	200
JAN 03...	1030	1460	480	498	7.7	7.9	5.0	3.0	35	--	190
MAR 15...	0930	2720	400	417	7.9	8.0	11.5	7.0	950	10.1	150
MAY 01...	1242	2120	400	412	8.1	8.2	18.5	11.5	18	9.6	150
JUL 09...	1030	2070	310	340	7.7	8.1	28.0	18.0	8.9	8.3	130
SEP 05...	1145	1680	445	444	8.4	8.1	28.5	16.0	370	8.9	160

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
NOV 04...	76	62	12	41	1	2.4	140	8.0	130	160	12
JAN 03...	84	58	11	31	1	2.0	130	.000	--	140	9.1
MAR 15...	57	46	9.4	29	1	2.0	118	.000	--	100	6.0
MAY 01...	53	46	9.3	22	.8	1.8	110	6.0	--	98	5.9
JUL 09...	49	42	6.2	16	.6	1.5	100	.000	--	69	5.5
SEP 05...	52	50	7.5	28	1	2.4	--	--	--	100	7.4

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV 04...	.30	8.7	380	380	--	--	--	--	--	--
JAN 03...	.30	11	325	330	--	--	--	--	--	--
MAR 15...	.30	11	267	260	.13	.050	.95	.340	16	5.9
MAY 01...	.20	8.3	224	260	--	--	--	--	--	--
JUL 09...	.30	7.0	198	200	--	--	--	--	--	--
SEP 05...	.30	9.0	291	270	.18	.070	.93	.350	2.8	2.0

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
MAR 15...	0930	1	3	800	67	<1	<1	60	20	20
SEP 05...	1145	2	<1	500	92	8	<1	10	<10	<1

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)
MAR 15...	<1	94	3	46000	6	33	<1	1200	7	.2
SEP 05...	<1	35	4	15000	8	18	8	500	10	.2

DATE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAR 15...	.3	29	1	1	<1	1	<1	230	14
SEP 05...	<.1	86	44	<1	<1	<1	<1	120	13

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
SEP 05...	1145	170	320

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 04...	0900	860	9.0	638	1480	28
JAN 03...	1030	1460	3.0	825	3250	28
MAR 15...	0930	2720	7.0	2420	17800	84
MAY 01...	1242	2120	11.5	221	1270	33
JUL 09...	1030	2070	18.0	57	319	73
SEP 05...	1145	1680	16.0	1550	7030	66

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM

LOCATION.--Lat 36°46'24", long 108°26'26", in SE¼NW¼ sec.32, T.30 N., R.15 W., San Juan County, Hydrologic Unit 14080105, on right bank 0.6 mi downstream from Westwater Arroyo, 0.7 mi upstream from highway to San Juan Power Plant, 14 mi west of Farmington, and at mile 4.5.

DRAINAGE AREA.--73.8 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft, from topographic map. Prior to May 20, 1978, at datum, 10.0 ft higher.

REMARKS.--Water-discharge records fair except those above 10 ft^3/s and those for winter months, which are poor.

AVERAGE DISCHARGE.--10 years, 2.14 ft^3/s, 1,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft^3/s May 20, 1978, gage height, 18.94 ft, from floodmark, from rating curve extended above 4.0 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42 ft^3/s at 0045 hours Aug. 23, gage height, 6.50 ft, no peak above base of 80 ft^3/s; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.09	.00	.00	.06	.04	.08	.03	.00	.00	.00	.10
2	.00	.10	.36	.00	.04	.79	.22	.00	.00	.00	.00	.02
3	.00	.04	.10	.00	.02	.03	.07	.01	.00	.00	.00	.00
4	.00	.12	.02	.00	.01	.02	.02	.03	.00	.00	.00	.00
5	.00	.17	.00	.02	.00	.00	.03	.04	.00	.00	.00	.00
6	.00	.14	.09	.01	.00	1.3	.04	.02	.02	.00	.00	.00
7	.00	.17	.00	.00	.00	.94	.11	.00	.00	.00	.00	.00
8	.00	.24	.00	.00	.00	.24	.00	.00	.00	.00	.00	.00
9	.00	.14	.00	.00	.02	.04	.07	.01	.00	.00	.00	.00
10	.00	.04	.00	.00	.05	.04	.09	.02	.00	.00	.00	.00
11	.00	.09	.00	.00	.00	.25	.07	.00	.00	.00	.00	.00
12	.00	.15	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00
13	.02	.18	.00	.00	.02	.02	.01	.00	.00	.00	.00	.00
14	.00	.13	.00	.00	.06	.04	.00	.00	.00	.00	.00	.00
15	.00	.02	.01	.00	.00	.04	.00	.00	.00	.00	.93	.00
16	.00	.09	.00	.00	.00	.02	.00	.18	.00	.00	.32	.00
17	.01	.19	.00	.01	.00	.01	.03	.13	.00	.00	.00	.00
18	.04	.84	.00	.02	.00	.03	.05	.07	.00	.00	.00	.00
19	.04	.29	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00
20	.00	.07	.00	.00	.00	.02	.48	.00	.00	.00	.00	.00
21	.00	.19	.20	.00	.00	.04	.12	.00	.00	.00	.00	.00
22	.00	.09	.10	.00	.00	.04	.05	.00	.00	.00	.00	.00
23	.00	.05	.00	.00	.01	.00	.04	.00	.00	.00	3.5	.00
24	.02	.03	.00	.00	.02	.02	.08	.00	.00	.00	.93	.00
25	.04	.04	.01	.01	.02	.04	.10	.00	.00	.00	.30	.00
26	.00	.00	.12	.02	.02	.44	.08	.00	.00	.00	.10	.00
27	.05	.02	.20	.04	.02	.31	.05	.00	.00	.00	.01	.00
28	.07	.01	.00	.06	.02	.01	.56	.00	.00	.00	.00	.00
29	.06	.00	.00	.07	.04	.03	.31	.00	.00	.00	.00	.00
30	.05	.00	.00	.07	---	.16	.02	.00	.00	.00	.00	.00
31	.09	---	.00	.07	---	.06	---	.00	---	.00	.32	---
TOTAL	.49	3.73	1.21	.40	.43	5.06	2.88	.54	.02	.00	6.41	.12
MEAN	.016	.12	.039	.013	.015	.16	.096	.017	.001	.000	.21	.004
MAX	.09	.84	.36	.07	.06	1.3	.56	.18	.02	.00	3.5	.10
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1.0	7.4	2.4	.8	.9	10	5.7	1.1	.04	.00	13	.2

CAL YR 1983 TOTAL 372.89 MEAN 1.02 MAX 7.0 MIN .00 AC-FT 740
WTR YR 1984 TOTAL 21.29 MEAN .058 MAX 3.5 MIN .00 AC-FT 42

NOTE: No gage-height record Jan. 3 to Feb. 29.

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
NOV 25...	1115	.04	1280	--	8.2	--	10.0	3.5	11.6	--	--	--
JAN 30...	1230	.08	8600	11300	8.3	8.1	10.0	1.0	13.9	3100	2700	370

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SAMPLE SOURCE (72005)
NOV 25...	--	--	--	--	480	.000	--	--	--	--	--	--
JAN 30...	520	2100	17	6.2	451	.000	5800	900	4.8	4.5	9900	29

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
JAN 30...	1230	970	660	120	630	610	29

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV 25...	1115	.04	3.5	295	.03	96	--
DEC 20...	1130	.07	4.0	267	.05	94	29
JAN 30...	1230	.08	1.0	133	.03	64	29
MAR 01...	1330	.04	13.0	260	.03	87	29
APR 04...	1145	.03	19.0	57	.00	71	--

09367678 FAJADA WASH AT CHACO CANYON NATIONAL MONUMENT, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°01'03", long 107°55'04", in SW¼SE¼ sec.29, T.21 N., R.10 W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument, on left bank 300 ft downstream from south boundary of Chaco Canyon National Monument, 0.5 mi west of Fajada Butte, 0.7 mi upstream from mouth and 1.0 mi southwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--199 mi^2.

PERIOD OF RECORD.--Water years 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT												
06...	1150	.06	510	509	8.0	8.0	15.0	19.0	20	0	6.5	.93

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SAMPLE SOURCE (72005)
OCT											
06...	110	11	3.2	240	.000	94	6.6	.50	8.1	350	29

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	SAMPLE SOURCE (72005)
OCT				
06...	1150	30	230	29

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT							
06...	1150	.06	19.0	7880	1.3	100	29

BEST COPY AVAILABLE

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°01'43", long 107°55'04", in NW¼NE¼ sec.29, T.21 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on downstream side of center bridge pier, 800 ft downstream from Fajada Wash, and 0.5 mi southwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--578 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

REVISED RECORDS.--WDR NM-80-1: 1979.

GAGE.--Water-stage recorder. Altitude of gage is 6,140 ft, from topographic map.

REMARKS.--Water-discharge records poor.

AVERAGE DISCHARGE.--8 years, 4.06 ft^3/s, 2,940 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,260 ft^3/s Jan. 18, 1979, gage height, 6.62 ft, from rating curve extended above 350 ft^3/s on basis of slope-area measurements at gage heights, 3.44 ft, 3.68 ft and 5.32 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	1000	*468	3.80	Aug. 26	0345	145	2.43
Dec. 27	0100	230	2.79	Sept. 1	0445	230	3.28
Aug. 2	0915	256	2.90				

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.00	.00	.00	.00	.00	5.9	.00	.00	.00	.00	62
2	33	.00	.00	.00	.00	.00	2.0	.00	.00	.00	10	4.0
3	6.9	.00	.42	.00	.00	.00	1.2	.00	.00	.00	1.0	1.0
4	6.4	.00	.00	.00	5.0	.00	.80	.00	.00	.00	.00	.00
5	5.9	.00	.00	.00	20	.00	.80	.00	.00	.00	.00	.00
6	4.9	.00	.00	.00	25	.00	.76	.00	.00	.00	.00	.00
7	6.0	.00	.00	.00	40	.00	.36	.00	.00	.00	.00	.00
8	1.5	.00	.00	.00	64	.00	.14	.00	.00	.00	.00	.00
9	.00	.00	.00	10	40	.00	.07	.00	.00	.00	.00	.00
10	.00	.00	.00	12	15	.00	.02	.00	.00	.00	.00	.00
11	.00	.00	.00	6.0	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	2.0	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	2.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.0	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00
25	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	4.9	.00
26	.00	.00	.30	.00	.00	.06	.00	.00	.00	.00	19	8.4
27	.00	.00	72	.00	.00	.60	.00	.00	.00	.00	.00	15
28	.00	.00	22	.00	.00	.60	.00	.00	.00	.00	.00	.00
29	.00	.00	1.0	23	.00	1.2	.00	.00	.00	.00	.00	.00
30	.00	.00	6.0	32	---	16	.00	.00	.00	.00	.00	.00
31	.00	---	.00	10	---	12	---	.00	---	.00	.00	---
TOTAL	64.70	2.30	101.92	95.00	209.00	30.46	12.05	.00	.00	.00	43.00	91.60
MEAN	2.09	.077	3.29	3.06	7.21	.98	.40	.000	.000	.000	1.39	3.05
MAX	33	2.3	72	32	64	16	5.9	.00	.00	.00	19	62
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	128	4.6	202	188	415	60	24	.00	.00	.00	85	182

CAL YR 1983 TOTAL 936.37 MEAN 2.57 MAX 182 MIN .00 AC-FT 1860
WTR YR 1984 TOTAL 650.03 MEAN 1.78 MAX 72 MIN .00 AC-FT 1290

NOTE: No gage-height record Feb. 1 to Mar. 18.

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT											
06...	1325	4.9	490	482	8.0	7.8	16.5	39	0	14	1.1

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT										
06...	95	7	2.5	240	.000	100	5.3	.60	12	350

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT			
06...	1325	40	150

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
06...	1325	4.9	16.5	11800	156	100

09367683 CHACO WASH AT PUEBLO BONITO BRIDGE AT CHACO CANYON NATIONAL MONUMENT, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 36°03'15", long 107° 57'52", in NE¼NW¼ sec. 13, T.21 N., R.11 W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument, on downstream side of center bridge pier, 800 ft south of Pueblo Bonito Ruins, 2.3 mi downstream from Gallo Wash, and 3.6 mi northwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--619 mi^2.

PERIOD OF RECORD.--Water years 1981 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT											
06...	1520	14	500	488	7.7	7.8	20.0	19.0	40	0	14

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT											
06...	1.2	96	7	2.6	160	.000	100	5.3	.60	14	310

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT			
06...	1520	30	480

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT							
06...	1520	14	19.0	11400	431	97	--
06...	1521	14	19.0	11800	446	98	29

BEST COPY AVAILABLE

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM

LOCATION.--Lat 36°09'13", long 107°56'47", in NW¼SW¼ sec.7, T.22 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on right bank 6.0 mi west of Kimbeto, and 6.0 mi upstream from mouth.

DRAINAGE AREA.--8.2 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1977 to current year (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,180 ft from topographic map.

REMARKS.--Water-discharge records fair. Recording rain gage at station.

AVERAGE DISCHARGE.--7 years, 1.38 ft^3/s, 1,000 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft^3/s Aug. 3, 1983, gage height, 7.38 ft, from rating curve extended above 60 ft^3/s on basis of step-back water analysis and slope-area measurements at gage heights 2.82 ft and 7.38 ft; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 314 ft^3/s at 1440 hours Oct. 1, gage height, 2.45 ft, no other peak above base of 300 ft^3/s; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	.00	.00	.10	.20	.00	.00	.00	.00	.00	.00	.14
2	7.9	.00	1.3	.42	.10	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	4.0	.55	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	5.0	.60	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.58	.10	.00	.00	.00	.06	.00	.45	.00
6	.00	.00	.00	.55	.10	.00	.00	.00	.20	.00	2.0	.00
7	.00	.00	.00	.68	.10	.00	.31	.00	.00	.00	.00	.00
8	.00	.00	.00	.72	.10	.00	.00	.00	.00	4.3	.00	.00
9	.00	.00	.00	.82	.05	.00	.33	.00	.00	.00	.00	.00
10	.00	.00	.00	.30	.10	.30	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.05	.20	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.30	.10	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	8.1	.47
15	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.75	.08
16	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	9.4	1.0
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.3	.12
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	8.8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.17	.00	.00	.00	.00	3.7	.00
23	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.03	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	7.3	.00	.00	.00	.00	.00	.00	.00	.01	.00
26	.00	.00	2.3	.00	.00	3.0	.00	.00	.00	.00	2.0	10
27	.00	.00	15	.00	.00	20	.00	.00	.00	.00	.00	.00
28	.00	.00	.51	.00	.00	8.3	.00	.00	.00	.00	.00	.00
29	.00	.00	.43	.00	.00	2.8	.00	.00	.00	.00	.00	.00
30	.00	.00	.20	.00	---	.84	.00	.00	.00	.00	.00	.00
31	.00	---	.09	.30	---	.00	---	.00	---	.00	.00	---
TOTAL	51.90	8.80	36.13	5.62	1.55	35.82	.64	.00	.26	4.30	32.74	11.81
MEAN	1.67	.29	1.17	.18	.053	1.16	.021	.000	.009	.14	1.06	.39
MAX	44	8.8	15	.82	.30	20	.33	.00	.20	4.3	9.4	10
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	103	17	72	11	3.1	71	1.3	.00	.5	8.5	65	23
(††)	0.76	---	---	---	0.0	0.84	0.62	0.14	0.43	0.38	1.90	1.18

CAL YR 1983 TOTAL 994.90 MEAN 2.73 MAX 244 MIN .00 AC-FT 1970
WTR YR 1984 TOTAL 189.57 MEAN .52 MAX 44 MIN .00 AC-FT 376

NOTE: No gage-height record Nov. 21 to Dec. 30.

(††) MONTHLY RAINFALL, IN INCHES.

09367950 CHACO RIVER NEAR WATERFLOW, NM

LOCATION.--Lat 36°43'28", long 108°35'27", in SW¼SW¼ sec.13, T.29 N., R.17 W., San Juan County, Hydrologic Unit 14080106, on downstream end of right bridge pier, 4.2 mi upstream from Dead Mans Wash, 5.3 mi downstream from the Hogback, 6.6 mi southwest of Waterflow, 7.2 mi southeast of Shiprock and at mile 4.5.

DRAINAGE AREA.--4,350 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1959-69 (annual maximum only), November 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft, from topographic map. Prior to 1975 at site 1.8 mi upstream at different datum.

REMARKS.--Water-discharge records fair except those for winter months, which are poor. Base flow is mostly waste water from Four Corners Power Plant.

AVERAGE DISCHARGE.--8 years (water years 1977-84), 41.2 ft^3/s, 29,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft^3/s, Sept. 20, 1969, gage height, 7.88 ft site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	1030	2040	6.70	Aug. 21	1230	1180	5.54
Dec. 28	2145	1290	5.55	Sept. 2	0430	2780	7.54
Aug. 17	0900	*4190	8.90				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	1.8	.02	2.0	20	.32	16	16	.01	18	12	487
2	1720	1.6	.15	2.4	20	.12	27	16	.00	19	13	961
3	698	1.7	.35	2.0	20	.08	39	17	.00	20	14	135
4	194	1.0	1.4	1.7	20	.02	34	16	.00	20	13	16
5	169	1.0	.76	1.3	21	.01	29	27	.00	20	13	3.8
6	43	1.2	.32	1.3	22	.01	26	36	.00	20	60	2.4
7	56	1.6	.30	2.0	20	.00	22	31	.00	19	18	1.0
8	28	1.8	.14	1.8	28	.00	17	24	.00	19	11	.34
9	21	1.8	.16	2.0	31	.00	16	20	.00	19	7.0	.02
10	15	2.0	4.3	4.9	31	.00	22	19	.00	20	16	.00
11	11	2.0	14	8.8	37	.00	18	17	.00	20	13	.00
12	9.6	1.8	13	11	28	.00	15	17	.00	20	5.6	.01
13	10	1.8	8.0	21	11	.00	14	17	.00	20	4.0	.00
14	10	1.3	3.5	25	7.2	.00	15	17	.00	69	3.5	.00
15	11	1.0	2.3	28	4.3	.00	16	18	.00	29	168	.00
16	11	1.0	5.1	21	5.6	.00	16	20	.00	17	130	.00
17	11	.95	2.7	19	5.7	.00	17	17	.00	16	1750	.00
18	12	.75	.45	18	4.0	.00	18	18	.00	16	305	.80
19	13	.70	.31	18	3.0	.00	38	18	.00	16	217	.62
20	13	.65	.53	17	2.7	.11	39	20	.00	16	249	.09
21	13	.55	.33	17	2.7	14	34	18	.00	16	420	.00
22	4.6	.40	.44	20	2.4	16	23	18	.00	16	50	.00
23	3.8	.35	.69	21	2.3	16	18	17	.00	19	34	.00
24	3.2	.25	.14	21	2.2	16	16	3.5	.00	27	20	.00
25	2.8	.20	.10	21	2.2	16	16	.84	.00	15	23	.00
26	2.6	.00	.43	21	2.1	18	18	.14	.00	15	21	.00
27	2.2	.00	2.4	21	2.0	16	25	.00	14	15	24	.00
28	2.2	.00	385	21	2.0	16	19	.00	18	15	18	.00
29	2.0	.00	280	20	2.0	15	24	1.9	18	34	17	.00
30	1.8	.00	65	19	---	15	19	1.7	19	24	19	.00
31	1.9	---	7.2	19	---	15	---	.40	---	13	14	---
TOTAL	3336.7	29.20	799.52	429.2	361.4	173.67	666	462.48	69.01	642	3682.1	1608.08
MEAN	108	.97	25.8	13.8	12.5	5.60	22.2	14.9	2.30	20.7	119	53.6
MAX	1720	2.0	385	28	37	18	39	36	19	69	1750	961
MIN	1.8	.00	.02	1.3	2.0	.00	14	.00	.00	13	3.5	.00
AC-FT	6620	58	1590	851	717	344	1320	917	137	1270	7300	3190

CAL YR 1983 TOTAL 17582.87 MEAN 48.2 MAX 2210 MIN .00 AC-FT 34880
WTR YR 1984 TOTAL 12259.36 MEAN 33.5 MAX 1750 MIN .00 AC-FT 24320

BEST COPY AVAILABLE

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGES: October 1976 to September 1982.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 26 indicates by automatic pump, 29 indicates dip or grab sample, and 40 indicates single-stage sample.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, 140,000 mg/L Jan. 18, 1979; minimum daily mean, no flow on many days in 1981 and 1982.
SEDIMENT LOADS: Maximum daily, 740,000 tons Sept. 25, 1978; minimum daily, 0 tons on many days in 1981 and 1982.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)
NOV 25...	0930	.09	940	--	8.3	--	8.5	4.0
JAN 30...	1050	20	1320	1250	8.2	8.2	6.0	6.0
JUL 13...	1315	20	1150	1190	8.3	8.2	29.0	30.0

DATE	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)
NOV 25...	12.0	--	--	--	--	--	--	--	250
JAN 30...	11.6	360	240	94	31	140	3	5.3	140
JUL 13...	6.3	320	230	80	30	130	3	5.5	110

DATE	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SAMPLE SOURCE (72005)
NOV 25...	.000	--	--	--	--	--	--	--
JAN 30...	5.0	440	57	.90	5.2	891	850	--
JUL 13...	2.0	430	54	.90	2.8	827	790	29

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)
JAN 30...	1050	--	--	590	--	--	--	11000	22
JUL 13...	1315	<1	<1.0	540	<1	<10	3	12000	6

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
JAN								
30...	--	170	4	--	--	--	--	--
JUL								
13...	1	160	4	.4	<1	2	11	29

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
JUL									
13...	1315	<18	18	<12	15	<10	13	.27	3.6

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
01...	1445	433	--	115000	134000	51	61
02...	0130	497	--	73200	98200	60	70
02...	0420	385	--	54900	57100	64	72
02...	0900	2300	--	53700	333000	53	59
NOV							
25...	0930	.09	4.0	203	.05	--	--
DEC							
20...	1010	.50	3.5	6760	9.1	--	--
JAN							
30...	1050	20	6.0	514	28	--	--
MAR							
01...	1200	.31	6.0	222	.19	--	--
APR							
04...	1030	34	9.0	20100	1850	--	--
MAY							
08...	1020	21	17.0	578	33	--	--
JUL							
13...	1115	31	--	153000	12800	--	--
13...	1315	20	30.0	500	27	--	--
13...	1420	31	--	40800	3410	--	--
14...	1300	260	--	160000	112000	--	--
14...	1430	175	--	218000	103000	--	--
14...	1600	127	--	172000	59000	--	--
29...	2230	263	--	130000	92300	--	--
30...	0005	30	--	200000	16200	--	--
AUG							
06...	1600	445	--	405000	487000	--	--
06...	1730	290	--	615000	482000	--	--
17...	0220	3200	--	56700	490000	42	51
20...	1543	239	23.0	86000	55500	54	63
27...	1015	52	--	24200	3400	--	--
SEP							
01...	1010	203	--	93900	51500	--	--
01...	1140	170	--	92800	42600	--	--
01...	1310	152	--	80400	33000	--	--
01...	1440	133	--	75000	26900	--	--
01...	1610	129	--	61900	21600	--	--
01...	1740	5140	--	71000	985000	--	--
12...	1050	.06	23.0	121	.02	--	--

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT							
01...	69	78	86	97	100	--	26
02...	81	86	91	98	100	--	25
02...	87	93	97	99	100	--	26
02...	74	88	95	99	100	--	26
NOV							
25...	--	--	--	--	--	85	--
DEC							
20...	--	--	--	--	--	100	29
JAN							
30...	--	--	--	--	--	96	--
MAR							
01...	--	--	--	--	--	88	29
APR							
04...	--	--	--	--	--	99	--
MAY							
08...	--	--	--	--	--	92	29
JUL							
13...	--	--	--	--	--	--	40
13...	--	--	--	--	--	96	29
13...	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	40
29...	--	--	--	--	--	--	40
30...	--	--	--	--	--	--	40
AUG							
06...	--	--	--	--	--	--	40
06...	--	--	--	--	--	--	40
17...	69	89	97	99	100	--	40
20...	86	96	99	100	--	--	--
27...	--	--	--	--	--	--	40
SEP							
01...	--	--	--	--	--	--	40
01...	--	--	--	--	--	--	40
01...	--	--	--	--	--	--	40
01...	--	--	--	--	--	--	40
01...	--	--	--	--	--	--	40
01...	--	--	--	--	--	--	40
12...	--	--	--	--	--	--	29

09368000 SAN JUAN RIVER AT SHIPROCK, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 36°47'32", long 108°43'54", in NW¼ sec.27, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, on left bank 3 mi west of Shiprock, 6 mi downstream from Chaco River, and at mile 215.0.

DRAINAGE AREA.--12,900 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to October 1911, February 1927 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1931, 1934-38, 1951. WSP 1313: 1911, 1933. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,848.68 ft National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Apr. 6, 1922, nonrecording gage and Apr. 7, 1922, to Oct. 25, 1933, water-stage recorder, at site 3 mi upstream at different datum. Oct. 26, 1933, to Sept. 30, 1936, water-stage recorder at present site at datum 3.31 ft higher and Oct. 1, 1936, to Sept. 30, 1952, at datum 1.77 ft higher. Supplementary water-stage recorders at nearby sites, same datum, used at times.

REMARKS.--Water-discharge records good. Since 1962 flow partly regulated by Navajo Reservoir (station 09355100). Diversions for irrigation of about 118,000 acres above station. Ungaged canals bypass station on both right and left bank, though some of bypass flow is returned to river below gage.

AVERAGE DISCHARGE.--58 years (water years 1927-84), 2,184 ft^3/s, 1,582,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD (SINCE 1927).--Maximum discharge, about 80,000 ft^3/s Aug. 11, 1929, gage height, 5.7 ft, site and datum then in use; minimum daily, 8 ft^3/s Aug. 25, 26, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, and reached a stage of 22 ft, site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,400 ft^3/s at 0745 hours May 26, gage height, 7.97 ft, no other peak above base of 6,000 f3/s; minimum daily discharge, 739 ft^3/s Nov. 5-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2670	1330	1500	1510	2360	2730	2090	2250	6440	3200	1800	2300
2	3540	1060	1520	1500	2350	2700	2160	2090	5870	2890	1550	3030
3	2720	756	1550	1420	2340	2720	2150	2110	5100	2970	1420	2030
4	2310	741	1550	1450	2370	2850	2100	2090	4670	2940	1330	1630
5	2000	739	1550	1520	2390	2820	2100	2150	4100	2710	1230	1420
6	1880	739	1500	1790	2400	2730	2030	2280	3970	2500	1950	1250
7	1760	739	1440	2120	2610	2810	2090	2340	3220	2280	2620	1030
8	1700	920	1440	2270	2640	2550	2170	2390	3070	2130	2060	983
9	1700	1400	1450	2300	2640	2390	2230	2340	2810	2130	1530	924
10	1680	1450	1480	2310	2660	2440	2440	2690	2600	2270	1370	844
11	1670	1400	1490	2360	2690	2610	2420	3290	2540	2320	1230	886
12	1670	1340	1500	2340	2660	2750	2340	4120	2570	2310	1060	1040
13	1760	1390	1490	2410	2650	2650	2340	5170	2860	2030	1360	1120
14	1790	1350	1490	2470	2610	2660	2310	5300	3380	2400	1130	1020
15	1700	1280	1500	2480	2660	2710	2380	5570	3820	2220	1210	1010
16	1720	1330	1510	2440	2610	2430	2500	6380	3970	2170	1370	1040
17	1690	1330	1470	2430	2650	2190	2710	5890	3990	2210	3050	1230
18	1630	1500	1490	2390	2720	2130	2920	5530	3580	1920	3490	1360
19	1620	1490	1490	2330	2700	2140	3250	5340	3390	1700	2360	1260
20	1600	1510	1490	2380	2660	2100	3480	4990	3080	1530	2010	1190
21	1580	1540	1480	2370	2670	2130	3190	5710	3180	1530	2140	1170
22	1570	1630	1470	2390	2650	2210	2720	6500	3470	1480	1750	1160
23	1570	1550	1450	2380	2650	2360	2490	7410	3640	1530	3110	1150
24	1500	1500	1490	2430	2620	2260	2320	8420	3410	1540	3590	1110
25	1420	1520	1520	2410	2630	2210	2190	9380	3190	1430	2890	1130
26	1450	1550	1750	2420	2780	2280	2410	9880	3310	1600	2530	1320
27	1420	1520	2010	2400	2760	2360	2360	9670	3680	1610	2340	1450
28	1390	1450	2510	2390	2650	2240	2290	9030	3750	1550	1850	1480
29	1390	1420	2120	2390	2680	2140	2300	8130	3380	1650	1580	1420
30	1400	1480	1560	2370	---	2120	2260	7420	3190	2100	1380	1340
31	1390	---	1510	2380	---	2140	---	6950	---	2000	1320	---
TOTAL	54890	38954	48770	68550	75460	75560	72740	162810	109230	64850	59610	39327
MEAN	1771	1298	1573	2211	2602	2437	2425	5252	3641	2092	1923	1311
MAX	3540	1630	2510	2480	2780	2850	3480	9880	6440	3200	3590	3030
MIN	1390	739	1440	1420	2340	2100	2030	2090	2540	1430	1060	844
AC-FT	108900	77270	96740	136000	149700	149900	144300	322900	216700	128600	118200	78010

CAL YR 1983 TOTAL 964683 MEAN 2643 MAX 8020 MIN 739 AC-FT 1913000
WTR YR 1984 TOTAL 870751 MEAN 2379 MAX 9880 MIN 739 AC-FT 1727000

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1941-45, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1941 to September 1945, July 1957 to current year.
WATER TEMPERATURES: December 1950 to current year.
SUSPENDED-SEDIMENT DISCHARGES: December 1950 to current year.

INSTRUMENTATION.--Continuous water-temperature and specific conductance recorders since March 1978.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1957-84): Maximum, 4,360 microsiemens July 31, 1959; minimum, 138 microsiemens Nov. 1, 1981.
WATER TEMPERATURES: Maximum, 34.0°C July 20, 1968; minimum, 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 114,000 mg/L Aug. 11, 1967; minimum daily mean, 2 mg/L May 4, 1963.
SEDIMENT LOADS: Maximum daily, 2,000,000 tons Aug. 11, 1967; minimum daily, 1 ton on several days during July and September 1959, September 1962, May and July 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,600 microsiemens Aug. 17; minimum daily, 210 microsiemens May 27, 28, 30, 31.
WATER TEMPERATURES: Maximum, 26.5°C July 20; minimum, 0.0°C several days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 42,000 mg/L Aug. 18; minimum daily mean, 43 mg/L July 11.
SEDIMENT LOADS: Maximum daily, 459,000 tons Aug. 18; minimum daily, 146 tons Nov. 7.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)
NOV 02...	1030	1070	505	512	8.3	8.1	19.5	10.5	10	10.2
JAN 03...	1530	1400	530	548	8.2	7.9	4.5	3.0	--	--
FEB 02...	1045	2390	440	441	7.9	8.0	6.0	3.0	39	12.9
MAY 14...	1045	5680	280	294	7.5	7.9	31.5	13.5	120	8.7
JUL 13...	1015	1990	360	387	7.8	8.2	29.0	21.0	--	7.9
SEP 06...	0830	1350	490	489	8.3	8.1	21.5	17.0	190	9.8

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)
NOV 02...	200	82	60	12	35	1	2.4	130	7.0	116
JAN 03...	200	85	62	12	35	1	2.0	140	3.0	--
FEB 02...	160	61	47	10	27	1	2.0	120	.000	--
MAY 14...	--	--	--	--	--	--	--	92	.000	--
JUL 13...	150	65	46	7.8	21	.8	1.6	100	.000	--
SEP 06...	170	46	53	9.1	30	1	2.9	150	1.0	110

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)
NOV 02...	150	11	.30	9.4	357	360	.16	.050	.130	.030
JAN 03...	160	11	.30	11	--	370	--	--	--	--
FEB 02...	110	7.9	.20	10	276	270	.19	.140	.160	.050
MAY 14...	56	2.9	.20	--	167	--	.17	.040	.570	<.010
JUL 13...	93	7.4	.30	6.3	--	230	--	--	--	--
SEP 06...	120	8.6	.40	9.6	320	310	.25	.130	--	.130

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV											
02...	1030	20	1	83	.6	40	<1	<1	<3	3	12
JAN											
03...	1530	--	--	--	--	40	--	--	--	--	9
FEB											
02...	1045	20	<1	76	<.5	30	<1	1	<3	2	14
JUL											
13...	1015	--	--	--	--	30	--	--	--	--	12
SEP											
06...	0830	20	<1	88	<1.0	--	1	<1	<3	5	12

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV											
02...	<1	34	9	.5	<10	6	1	<1	750	<6	10
JAN											
03...	--	--	--	--	--	--	--	--	--	--	--
FEB											
02...	<1	24	3	.4	<10	1	<1	<1	530	<6	8
JUL											
13...	--	--	--	--	--	--	--	--	--	--	--
SEP											
06...	6	27	7	<.1	<10	4	<1	<1	710	<6	26

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITROGEN, NH4 TOTAL IN BOT. MAT. (MG/KG AS N) (00611)	PHOSPHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)
NOV							
02...	1030	<2.0	3.7	78	2	<1	1

DATE	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
NOV							
02...	<10	1	1300	<10	180	.01	20

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
NOV									
02...	1030	<12	6.7	<4.8	4.7	<4.0	4.1	.07	1.6
MAY									
14...	1045	<4.2	31	<2.3	27	<2.0	23	.09	1.1

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
JUL 13...	1015	--	--	--	--	--	--	--	--	--
SEP 06...	0830	<.1	<.010	<.1	<.010	<.010	<.010	.01	<.010	<.010

DATE	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL TRI-THION, TOTAL (UG/L) (39790)
JUL 13...	--	--	--	--	--	--	--	--	--
SEP 06...	<.010	<.01	<.010	<.010	<.010	<.01	<.01	<.01	<.01

DATE	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
JUL 13...	--	--	--	.02	<.01	<.01	--	--	--
SEP 06...	<.01	<1	<.01	--	--	--	<.1	<.10	<.01

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 02...	1030	480	130
JAN 03...	1530	6	260
FEB 02...	1045	150	71
MAY 14...	1045	550	1200
JUL 13...	1015	200	480
SEP 06...	0830	200	340

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT									
03...	1330	2600	12.0	19400	136000	54	60	73	86
NOV									
02...	1030	1070	10.5	480	1390	--	--	--	--
DEC									
28...	0845	3020	1.0	18700	152000	64	76	89	98
JAN									
03...	1530	1400	3.0	1030	3890	--	--	--	--
FEB									
02...	1045	2390	3.0	1370	8840	--	--	--	20
08...	1115	2960	3.0	1370	10900	46	51	59	87
10...	1535	2940	3.0	1450	11500	45	49	67	--
MAR									
05...	0815	3320	4.0	5840	52300	44	65	83	--
14...	1214	2940	9.0	3250	25800	43	57	85	--
APR									
03...	1300	2090	7.0	676	3810	52	56	61	66
MAY									
14...	1045	5680	13.5	1710	26200	7	11	21	55
JUL									
13...	1015	1990	21.0	155	833	--	--	--	--
14...	0940	2910	20.0	10800	84900	56	74	92	--
AUG									
19...	1115	2770	24.0	40000	299000	66	73	92	--
25...	1400	3470	20.0	10000	93700	45	56	78	95
27...	1105	2800	20.0	2070	15600	--	--	--	--
SEP									
02...	1500	3020	20.0	6680	54500	--	--	--	--
06...	0830	1350	17.0	868	3160	27	31	39	65
18...	1105	1660	18.0	6670	29900	60	70	93	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT									
03...	94	98	100	--	--	--	--	--	--
NOV									
02...	--	--	--	--	32	--	--	--	--
DEC									
28...	100	--	--	--	--	--	--	--	--
JAN									
03...	--	--	--	--	28	--	--	--	--
FEB									
02...	47	89	98	100	--	--	--	--	--
08...	98	100	--	--	--	--	--	--	--
10...	--	--	--	--	91	98	100	--	--
MAR									
05...	--	--	--	--	98	99	100	--	--
14...	--	--	--	--	98	100	--	--	--
APR									
03...	71	88	99	100	--	--	--	--	--
MAY									
14...	81	93	100	--	--	--	--	--	--
JUL									
13...	--	--	--	--	43	50	59	91	100
14...	--	--	--	--	100	--	--	--	--
AUG									
19...	--	--	--	--	100	--	--	--	--
25...	100	--	--	--	--	--	--	--	--
27...	--	--	--	--	95	--	--	--	--
SEP									
02...	--	--	--	--	99	--	--	--	--
06...	83	93	100	--	--	--	--	--	--
18...	--	--	--	--	100	--	--	--	--

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	835	542	579	564								
2	939	536	571	539								
3	644	662	593	545								
4	555	691	627									
5	503	688	580									
6	502	676	564									
7	538	676	554									476
8	524	688	570									499
9	521	567	579									499
10	524	557	572									506
11	521		568								540	486
12	518		560								519	489
13	517		560								625	499
14	562		562								539	496
15	522		553								664	535
16	511	554	552								714	501
17	506	567	546									493
18	517	610	563									568
19	518	587	548									483
20	517	633	557							445		483
21	518	583	552							457		475
22	513	638	539							439		485
23	518	593	562							440		484
24	513	580	593							454		476
25	522	567	571							444		482
26	518	587	576							455		478
27	523	573	633							431		479
28	525	560	821							431		478
29	519	563	690							435		486
30	524	581	570		---					501		478
31	520	---	576		---		---		---	423		---
MEAN	549		582									

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1				---	---	---				---	---	---
2				---	---	---				---	---	---
3				---	---	---				---	---	---
4				---	---	---				590	535	554
5				---	---	---				545	530	535
6				---	---	---				535	480	516
7				---	---	---				485	460	468
8				---	---	---				460	440	448
9				---	---	---				450	440	445
10				---	---	---				445	435	442
11				565	530	548				455	440	447
12				560	545	554				450	440	445
13				565	550	559				450	420	434
14				575	560	566				435	425	432
15				585	540	573				435	425	42[illegible]
16				---	---	---				435	415	427
17				---	---	---				430	400	415
18				---	---	---				425	395	409
19				---	---	---				425	375	400
20				---	---	---				440	385	405
21				---	---	---				440	395	411
22				---	---	---				425	395	406
23				---	---	---				425	395	406
24				---	---	---				415	395	406
25				---	---	---				425	400	407
26				---	---	---				425	400	410
27				---	---	---				425	400	412
28				---	---	---				430	395	413
29				---	---	---				435	400	415
30				---	---	---				435	400	418
31				---	---	---				440	400	421
MONTH				585	530	560				590	375	435

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	445	410	426	385	370	376	475	460	469	440	425	433
2	430	415	424	385	375	380	475	465	470	440	425	434
3	435	405	420	460	370	403	485	465	481	430	420	426
4	430	410	420	465	420	435	480	470	476	425	415	422
5	425	410	419	435	410	419	480	465	472	435	420	423
6	425	410	419	410	380	394	475	465	471	425	405	415
7	420	400	411	390	380	382	470	460	468	410	395	404
8	405	395	402	400	380	388	480	465	474	405	390	397
9	410	390	400	410	395	400	465	455	461	400	390	395
10	410	395	403	425	410	415	470	460	464	400	370	386
11	410	385	393	445	415	433	460	450	456	370	350	360
12	400	380	385	455	435	447	455	435	446	365	315	337
13	395	380	386	445	425	432	440	430	436	325	285	299
14	385	380	381	435	420	428	445	430	437	290	270	274
15	390	380	386	435	425	429	440	425	431	335	260	275
16	385	375	381	465	430	445	430	420	428	275	245	250
17	390	380	383	470	455	463	430	415	423	265	255	259
18	395	385	390	485	460	471	415	395	405	265	260	263
19	395	385	389	475	460	470	400	375	389	265	255	258
20	385	380	383	470	460	468	390	375	382	275	265	270
21	385	375	381	495	465	476	400	380	392	270	245	255
22	385	380	381	480	465	474	405	395	400	255	230	237
23	385	380	382	480	465	472	410	400	408	240	225	232
24	385	375	380	470	450	459	420	410	416	240	225	229
25	380	375	378	450	445	447	425	415	423	230	215	225
26	380	370	376	450	445	446	435	410	418	235	215	221
27	380	370	375	535	445	479	540	410	445	220	210	216
28	375	365	371	535	465	487	480	410	431	220	210	214
29	375	365	369	465	455	462	450	415	436	220	215	218
30	---	---	---	465	450	459	440	425	432	225	210	218
31	---	---	---	475	455	466	---	---	---	225	210	219
MONTH	445	365	393	535	370	439	540	375	438	440	210	305

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	245	220	229	300	285	293	410	400	408	550	520	532
2	365	240	261	440	295	336	430	415	427	560	535	547
3	260	250	254	315	295	302	455	435	446	530	520	526
4	270	260	262	300	290	295	465	445	458	525	520	524
5	295	275	284	305	300	302	475	465	472	530	525	529
6	320	295	309	320	310	311	1030	455	551	530	515	523
7	350	320	333	335	320	324	1560	635	1050	---	---	---
8	355	335	347	340	335	335	870	520	600	---	---	---
9	355	335	341	345	335	343	555	395	531	---	---	---
10	385	355	372	350	335	340	565	465	521	---	---	---
11	395	385	389	335	330	333	---	---	---	---	---	---
12	395	380	385	335	330	331	---	---	---	---	---	---
13	380	345	363	400	335	366	---	---	---	---	---	---
14	345	290	312	915	395	500	---	---	---	---	---	---
15	290	245	260	510	410	435	---	---	---	---	---	---
16	250	235	244	410	385	393	---	---	---	---	---	---
17	260	245	249	480	380	414	1260	755	1020	---	---	---
18	280	260	269	435	405	414	1600	525	970	---	---	---
19	290	280	284	420	410	418	1020	575	796	---	---	---
20	305	290	296	---	---	---	815	525	634	---	---	---
21	305	290	298	---	---	---	875	605	713	---	---	---
22	290	275	280	---	---	---	640	485	537	---	---	---
23	275	255	266	---	---	---	1320	450	793	---	---	---
24	280	265	269	---	---	---	690	440	487	---	---	---
25	290	275	283	---	---	---	460	445	454	---	---	---
26	290	275	284	---	---	---	465	450	455	---	---	---
27	270	255	262	---	---	---	470	460	464	---	---	---
28	265	255	258	---	---	---	485	475	478	---	---	---
29	275	255	265	---	---	---	495	485	490	---	---	---
30	295	275	284	---	---	---	510	495	503	---	---	---
31	---	---	---	---	---	---	525	300	479	---	---	---
MONTH	395	220	293	915	285	357	1600	300	589	560	515	530
YEAR	1600	210	411									

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09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						5.0	9.0					
2						4.0	7.0					
3					2.0	5.0						
4					3.0	5.0						
5					4.0	4.0						
6					3.0							
7					3.0							21.0
8					3.0							17.0
9					3.0							21.0
10					3.0							19.0
11					3.0							19.0
12					2.0							19.0
13					2.0	10.0						17.0
14					5.0	9.0						19.0
15					2.0	9.0						18.0
16					2.0	9.0						19.0
17					3.0	8.0						18.0
18					3.0	8.0						18.0
19					4.0	10.0						17.0
20					3.0	12.0						17.0
21					4.0	11.0						19.0
22					3.0	10.0						18.0
23					2.0	11.0						17.0
24					3.0	9.0						15.0
25					4.0	8.0				23.0		14.0
26					---	8.0				23.0		15.0
27					---	8.0				25.0		14.0
28					---	6.0				23.0		14.0
29					---	7.0				24.0		15.0
30					---	10.0				23.0		14.0
31		---			---	7.0	---		---	25.0		---

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	14.0	12.5	13.0	12.0	11.0	11.5	4.5	3.5	4.0	3.0	3.0	3.0
2	13.5	12.0	13.0	11.5	10.5	11.0	5.0	4.0	4.5	3.0	3.0	3.0
3	14.5	12.0	13.5	11.5	10.5	11.0	5.0	4.0	4.5	4.0	2.5	3.0
4	14.5	12.0	13.0	11.5	10.0	10.5	5.5	4.5	5.0	3.0	2.0	2.5
5	15.0	11.5	13.5	11.5	10.5	11.0	4.5	3.0	4.0	3.5	2.0	3.0
6	15.5	12.5	14.0	11.5	10.5	11.0	3.5	3.0	3.0	4.0	2.5	3.0
7	16.0	13.0	14.5	11.0	10.0	10.5	3.5	2.5	3.0	4.5	2.5	3.5
8	15.5	14.0	14.5	11.0	9.5	10.5	3.5	3.0	3.5	4.5	3.0	3.5
9	16.0	13.0	14.5	9.0	6.0	7.0	4.0	3.5	3.5	4.0	3.0	3.5
10	16.0	14.5	15.0	7.5	5.5	6.5	5.0	3.5	4.0	4.0	2.5	3.5
11	15.0	13.5	14.0	8.0	6.5	7.0	4.5	3.5	4.0	3.5	2.5	3.0
12	13.5	10.5	12.5	8.5	8.0	8.0	4.5	3.5	4.0	3.0	1.5	2.0
13	13.0	10.5	12.0	9.0	8.5	8.5	4.5	4.0	4.0	3.0	1.5	2.5
14	12.5	11.0	12.0	9.0	8.5	8.5	4.0	3.5	3.5	3.5	2.5	3.0
15	12.5	9.5	11.0	8.5	6.5	7.5	4.0	3.5	3.5	3.5	2.5	3.0
16	12.0	9.5	10.5	6.5	5.5	6.5	3.5	3.0	3.5	3.0	2.0	2.5
17	11.5	9.0	10.5	6.5	5.0	6.0	3.5	3.0	3.5	2.5	.5	1.5
18	14.0	10.0	11.5	7.0	5.5	6.5	4.0	3.5	3.5	1.0	.0	.5
19	13.0	11.0	12.0	5.5	4.0	5.0	4.0	3.5	3.5	1.0	.0	.5
20	12.0	10.5	11.0	5.5	4.0	5.0	4.0	3.5	4.0	2.0	.0	1.0
21	12.0	9.5	11.0	5.5	4.5	5.0	3.5	3.0	3.5	1.5	.0	1.0
22	12.0	9.5	11.0	5.0	3.0	4.5	3.0	2.5	2.5	2.5	.5	1.5
23	12.0	9.0	10.5	4.5	3.0	4.0	3.0	2.5	3.0	2.5	.5	1.5
24	12.0	9.5	11.0	4.5	3.0	4.0	3.5	3.0	3.5	3.0	1.5	2.0
25	12.0	10.5	11.0	5.0	3.5	4.5	4.0	3.5	3.5	3.5	1.5	2.5
26	12.0	9.5	11.0	4.5	3.0	4.0	4.5	4.0	4.0	4.0	2.5	3.0
27	11.0	9.5	10.5	3.0	2.0	2.5	4.5	4.0	4.5	4.0	2.0	3.0
28	11.5	9.5	10.5	3.5	2.5	3.0	4.5	3.0	3.5	4.0	2.0	3.0
29	12.5	10.0	11.0	3.5	3.0	3.5	3.0	3.0	3.0	4.5	2.0	3.5
30	12.5	10.5	11.5	4.0	3.0	3.5	2.5	2.5	2.5	5.0	2.5	3.5
31	12.5	11.0	11.5	---	---	---	3.0	2.5	3.0	5.0	5.0	5.0
MONTH	16.0	9.0	12.0	12.0	2.0	7.0	5.5	2.5	3.5	5.0	.0	2.5

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

TEMPERATURE WATER (DEG.° C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	5.0	5.0	5.0	---	---	---	---	---	---	14.0	9.5	11.5
2	5.0	5.0	5.0	---	---	---	---	---	---	13.0	11.0	12.0
3	---	---	---	---	---	---	9.5	7.0	8.5	15.0	11.0	13.0
4	---	---	---	---	---	---	11.0	6.5	8.5	15.5	12.0	14.0
5	---	---	---	---	---	---	12.5	7.5	10.0	16.0	13.0	14.5
6	---	---	---	5.3	3.5	4.5	12.0	9.5	10.5	15.5	12.0	13.5
7	---	---	---	7.0	3.5	5.0	12.5	9.5	11.0	14.0	10.5	12.0
8	---	---	---	7.0	4.0	5.5	13.0	8.5	11.0	14.5	10.0	12.5
9	---	---	---	8.0	4.0	6.0	11.0	8.0	10.0	15.5	11.0	13.5
10	---	---	---	9.0	5.0	7.0	10.5	6.0	8.5	16.0	12.5	14.5
11	---	---	---	9.0	7.0	8.0	11.5	8.5	10.0	16.5	13.0	14.5
12	---	---	---	8.0	5.5	7.0	11.5	7.5	9.5	16.0	13.0	14.5
13	---	---	---	---	---	---	12.5	8.5	10.5	15.5	13.0	14.5
14	---	---	---	---	---	---	12.5	9.0	10.5	15.0	13.0	14.0
15	---	---	---	---	---	---	13.5	9.0	11.0	14.0	12.5	13.0
16	---	---	---	---	---	---	14.0	10.0	12.0	13.0	10.5	12.0
17	---	---	---	---	---	---	14.0	10.5	12.5	13.5	11.0	12.5
18	---	---	---	---	---	---	15.0	12.0	13.5	14.0	12.0	13.0
19	---	---	---	---	---	---	13.5	11.0	12.0	14.0	11.5	13.0
20	---	---	---	---	---	---	11.0	8.0	9.0	15.0	12.0	13.5
21	---	---	---	---	---	---	11.0	8.0	9.5	14.5	13.0	14.0
22	---	---	---	---	---	---	11.5	8.0	10.0	14.5	12.5	13.5
23	---	---	---	---	---	---	13.5	9.0	11.0	15.0	12.5	14.0
24	---	---	---	---	---	---	14.5	10.5	12.5	15.0	12.5	14.0
25	---	---	---	---	---	---	12.0	9.0	11.0	15.0	12.5	14.0
26	---	---	---	---	---	---	9.0	7.5	8.0	15.0	12.5	13.5
27	---	---	---	---	---	---	9.0	6.5	7.5	14.5	12.0	13.5
28	---	---	---	---	---	---	7.5	6.5	7.0	14.5	12.0	13.5
29	---	---	---	---	---	---	10.5	6.0	8.0	15.0	12.5	14.0
30	---	---	---	---	---	---	12.0	8.5	10.0	14.5	12.5	14.0
31	---	---	---	---	---	---	---	---	---	14.5	13.0	13.5
MONTH	5.0	5.0	5.0	9.0	3.5	6.0	15.0	6.0	10.0	16.5	9.5	13.5

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	14.0	12.5	13.5	21.5	17.5	19.5	26.0	22.5	24.5	20.5	18.5	19.5
2	14.5	12.5	13.5	22.5	18.5	20.5	25.5	21.5	23.5	19.5	16.5	18.0
3	15.5	14.0	14.5	22.5	19.0	20.5	26.5	21.5	23.5	20.0	18.5	19.0
4	15.5	13.0	14.5	22.5	18.0	20.0	24.5	21.5	23.0	20.0	19.0	19.5
5	14.5	11.5	13.5	23.0	18.0	20.5	23.5	20.5	22.0	20.0	19.0	19.5
6	13.5	11.0	12.5	24.0	19.0	21.5	25.0	20.5	22.0	20.0	18.5	19.5
7	15.5	12.5	14.0	23.5	20.0	21.5	23.5	20.5	21.5	---	---	---
8	16.5	13.0	14.5	22.5	20.0	21.5	24.0	20.0	21.5	---	---	---
9	17.0	13.0	15.0	22.5	18.5	20.5	24.0	20.0	22.0	---	---	---
10	18.5	14.0	16.0	24.0	20.0	22.0	25.0	20.0	22.5	---	---	---
11	20.0	15.0	17.5	24.5	20.5	22.5	25.5	20.5	23.0	---	---	---
12	21.0	16.5	18.5	24.0	20.0	22.0	25.5	21.0	23.0	---	---	---
13	21.0	17.0	19.0	22.5	20.0	21.5	24.5	20.5	22.5	---	---	---
14	20.5	17.0	18.5	24.0	20.0	21.5	25.5	20.5	23.0	---	---	---
15	18.5	16.5	17.5	25.0	21.0	22.5	25.0	21.5	23.0	---	---	---
16	17.5	15.5	16.5	25.5	22.0	23.5	25.5	21.5	23.0	---	---	---
17	17.5	14.5	16.0	24.5	21.0	22.5	24.5	19.5	22.0	---	---	---
18	19.0	15.0	17.0	25.0	20.0	22.5	23.0	21.0	22.0	---	---	---
19	20.5	16.5	18.0	25.5	20.5	23.0	23.0	21.5	22.0	---	---	---
20	20.5	17.0	18.5	26.5	21.5	24.0	22.5	20.5	21.5	---	---	---
21	21.0	17.0	18.5	26.0	22.0	24.0	23.0	20.0	21.5	---	---	---
22	20.5	16.5	18.0	24.5	21.5	23.0	22.0	21.0	21.5	---	---	---
23	20.0	16.0	18.0	25.5	21.0	22.5	21.5	19.0	20.0	---	---	---
24	21.0	16.5	18.5	25.0	20.5	22.0	21.0	18.5	20.0	---	---	---
25	19.5	17.5	18.5	---	---	---	21.5	19.5	20.5	---	---	---
26	20.0	16.5	18.0	---	---	---	22.0	18.5	20.0	---	---	---
27	20.0	17.0	18.5	---	---	---	22.0	19.0	20.5	---	---	---
28	21.5	17.5	19.0	---	---	---	21.5	19.0	20.5	---	---	---
29	21.5	18.0	19.5	---	---	---	21.5	19.0	20.0	---	---	---
30	20.5	18.0	19.0	---	---	---	21.5	19.5	20.5	---	---	---
31	---	---	---	---	---	---	21.5	20.0	20.5	---	---	---
MONTH	21.5	11.0	17.0	26.5	17.5	22.0	26.5	18.5	22.0	20.5	16.5	19.0
YEAR	26.5	.0	12.0									

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09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20300	146000	246	883	229	927	416	1700	454	2890	226	1670
2	40600	388000	240	687	228	936	264	1070	1140	7230	310	2260
3	17800	131000	205	418	1070	4480	514	1970	460	2910	3420	25100
4	8890	55400	139	278	1020	4270	259	1010	564	3610	4150	31900
5	1990	10700	162	323	278	1160	465	1910	381	2460	4750	36200
6	1160	5890	124	247	130	526	814	3930	797	5160	1120	8260
7	1520	7220	73	146	135	525	842	4820	864	6090	602	4570
8	1400	6430	214	532	203	789	721	4420	1240	8840	423	2910
9	1850	8490	351	1330	178	697	761	4730	1420	10100	481	3100
10	866	3930	264	1030	163	651	768	4790	1460	10500	1110	7310
11	369	1660	172	650	285	1150	1020	6500	791	5750	3790	26700
12	589	2660	128	463	210	850	603	3810	468	3360	5470	40600
13	858	4080	119	447	215	865	1100	7160	446	3190	2700	19300
14	1930	9330	113	412	254	1020	1080	7200	444	3130	3150	22600
15	443	2030	85	294	159	644	1120	7500	480	3450	3090	22600
16	413	1920	101	363	172	701	641	4220	376	2650	1830	12000
17	274	1250	184	661	103	409	629	4130	343	2450	1020	6030
18	263	1160	274	1110	203	817	704	4540	467	3430	1030	5920
19	302	1320	220	885	240	966	418	2630	323	2350	423	2440
20	272	1180	213	868	123	495	668	4290	228	1640	307	1740
21	228	973	492	2050	149	595	462	2960	222	1600	246	1410
22	217	920	1750	7700	121	480	542	3500	213	1520	441	2630
23	434	1840	421	1760	130	509	514	3300	238	1700	566	3610
24	170	688	240	972	186	748	472	3100	198	1400	321	1960
25	152	583	685	2810	285	1170	503	3270	286	2030	274	1630
26	218	853	175	732	805	3600	442	2890	244	1830	249	1530
27	217	832	460	1890	1900	10300	535	3470	218	1620	314	2000
28	205	769	191	748	11700	79300	497	3210	215	1540	361	2180
29	945	3550	235	901	13100	75000	645	4160	218	1580	174	1010
30	571	2160	200	799	2730	11500	421	2690	---	---	146	836
31	209	784	---	---	624	2540	437	2810	---	---	201	1160
TOTAL	---	803602	---	32389	---	208820	---	117690	---	106010	---	303166

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	215	1210	128	778	253	4400	448	3870	111	539	12400	85700
2	138	805	102	576	598	9480	458	3570	137	573	12900	118000
3	469	2720	81	461	290	3990	82	658	111	426	2220	12200
4	296	1680	73	412	190	2400	76	603	54	194	1350	5940
5	242	1370	130	755	145	1610	48	351	57	189	925	3550
6	239	1310	221	1360	142	1520	48	324	2990	27600	1050	3540
7	181	1020	236	1490	131	1140	50	308	7430	52600	623	1730
8	161	943	150	968	136	1130	59	339	7320	40700	302	802
9	162	975	192	1210	76	577	57	328	5000	20700	271	676
10	291	1920	505	3670	73	512	44	270	1850	6840	215	490
11	292	1910	754	6700	71	487	43	269	1590	5280	325	777
12	188	1190	1040	11600	53	368	60	374	335	959	367	1030
13	130	821	1340	18700	72	556	112	614	4490	16500	862	2610
14	106	661	1340	19200	143	1310	5550	36000	2590	7900	340	936
15	267	1720	862	13000	161	1660	201	1200	9000	29400	450	1230
16	250	1690	854	14700	220	2360	235	1380	9400	34800	432	1210
17	513	3750	604	9610	127	1370	236	1410	31400	282000	620	2060
18	1270	10000	423	6320	98	947	245	1270	42000	459000	3130	11500
19	1190	10400	573	8260	80	732	128	588	31400	200000	1060	3610
20	481	4520	363	4890	56	466	89	368	6440	34900	630	2020
21	1030	8870	441	6800	66	567	90	372	8320	48100	398	1260
22	548	4020	476	8350	79	740	167	667	3040	14400	398	1250
23	256	1720	518	10400	99	973	95	392	27900	272000	293	910
24	199	1250	699	15900	69	635	210	873	23200	225000	312	935
25	180	1060	625	15800	60	517	86	332	7930	61900	221	674
26	320	2080	2140	57100	96	858	131	566	3550	24300	265	944
27	365	2330	1190	31100	111	1100	107	465	2200	13900	369	1440
28	340	2100	436	10600	136	1380	80	335	823	4110	252	1010
29	250	1550	465	10200	160	1460	89	396	440	1880	366	1400
30	190	1160	428	8570	534	4600	582	3300	405	1510	203	734
31	---	---	465	8730	---	---	161	869	345	1230	---	---
TOTAL	---	76755	---	308210	---	49845	---	62661	---	1889430	---	270168

TOTAL LOAD FOR YEAR: 4228746 TONS.

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¼NE¼ sec.21, T.32 N., R.20 W., Montezuma County, Hydrologic Unit 14080201, on left bank 1,300 ft upstream from bridge on U.S. Highway 160, 0.1 mi north of New Mexico-Colorado State line, 1.0 mi east of Four Corners Monument, 3.0 mi downstream from Mancos River, and at mile 187.2.

DRAINAGE AREA.--14,600 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft, from topographic map.

REMARKS.--Water-discharge records fair.

AVERAGE DISCHARGE.--7 years, 2,395 ft^3/s, 1,735,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft^3/s May 29, 1979, gage height, 6.25 ft; maximum gage height, 14.43 ft Dec. 12, 1978 (backwater from ice); minimum 110 ft^3/s Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,500 ft^3/s at 1000 hours May 26, gage height, 5.15 ft, no other peak above base of 6,000 ft^3/s; minimum daily discharge, 777 ft^3/s Nov. 6-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2220	1290	1340	1560	2370	2900	2240	2940	7730	3870	1860	2250
2	3250	1250	1420	1590	2350	2950	2270	2920	7400	3430	1630	3580
3	2980	871	1610	1520	2340	3050	2300	2860	6880	3340	1470	2340
4	2390	787	1530	1490	2410	3150	2210	2850	6370	3250	1380	1880
5	2050	789	1510	1580	2430	3180	2210	2920	5770	3010	1300	1590
6	1920	777	1350	1700	2430	3040	2200	3110	5470	2780	1320	1440
7	1650	777	1270	2110	2620	2970	2250	3130	4810	2550	2790	1250
8	1600	777	1270	2160	2920	2820	2340	3190	4260	2310	2150	1160
9	1600	1320	1330	2110	2900	2640	2350	3280	4080	2280	1760	1090
10	1500	1460	1360	2150	3000	2560	2520	3610	3520	2270	1470	1050
11	1500	1430	1350	2170	3000	2760	2550	4250	3090	2260	1430	984
12	1500	1270	1340	2180	3020	2970	2420	5090	2840	2210	1250	1240
13	1600	1350	1330	2170	3020	2890	2430	5960	2980	1990	1350	1250
14	1700	1390	1330	2260	3050	2860	2390	6680	3380	2190	1340	1220
15	1600	1330	1350	2260	3020	2890	2460	6930	4470	2210	1440	1130
16	1600	1360	1470	2230	2900	2760	2570	7380	5180	2120	1530	1140
17	1550	1390	1530	2210	2980	2390	2910	7490	5110	2250	2930	1210
18	1500	1480	1500	2360	3020	2370	3310	7480	4440	1990	3420	1470
19	1400	1530	1510	2420	2980	2320	3760	7530	3990	1800	2970	1420
20	1400	1400	1580	2360	2900	2240	3920	7280	3480	1640	2630	1340
21	1400	1430	1500	2380	2850	2210	3890	7730	3440	1600	2490	1390
22	1380	1520	1500	2290	2880	2300	3530	7990	3600	1570	2100	1360
23	1420	1410	1500	2240	2860	2440	3260	8160	3870	1740	3100	1390
24	1400	1380	1500	2270	2800	2370	2940	8690	3890	1870	3700	1390
25	1350	1380	1550	2250	2900	2310	2890	9360	3730	1600	3000	1330
26	1350	1420	1660	2300	3020	2280	3060	9100	3720	1710	2700	1450
27	1340	1370	1730	2310	2950	2380	3160	9060	4120	1760	2300	1600
28	1310	1340	2060	2350	2850	2340	3130	9050	4310	1660	2000	1610
29	1310	1310	2170	2340	2850	2260	3140	8820	4020	1680	1750	1570
30	1340	1320	1600	2330	---	2310	2990	8470	3740	2060	1490	1470
31	1360	---	1540	2350	---	2250	---	8090	---	1940	1530	---
TOTAL	51470	37908	46590	66000	81640	81160	83600	191400	133690	68940	63580	44594
MEAN	1660	1264	1503	2129	2815	2618	2787	6174	4456	2224	2051	1486
MAX	3250	1530	2170	2420	3050	3180	3920	9360	7730	3870	3700	3580
MIN	1310	777	1270	1490	2340	2210	2200	2850	2840	1570	1250	984
AC-FT	102100	75190	92410	130900	161900	161000	165800	379600	265200	136700	126100	88450

CAL YR 1983 TOTAL 992111 MEAN 2718 MAX 7850 MIN 777 AC-FT 1968000
WTR YR 1984 TOTAL 950572 MEAN 2597 MAX 9360 MIN 777 AC-FT 1885000

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09379500 SAN JUAN RIVER NEAR BLUFF, UT

Location.--Lat 37°08'49", long 109°51'51", in SE¼NE¼NW¼ sec.7, T.42 S., R.19 E., San Juan County, Hydrologic Unit 14080205, on left bank 1,600 ft downstream from Gypsum Creek, 1,800 ft upstream from highway bridge, 20 mi southwest of Bluff, and at mile 113.5.

DRAINAGE AREA.--23,000 mi^2, approximately.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1940. WSP 1313: 1917, 1929. WSP 1343: 1945.

GAGE.--Water-stage recorder. Datum of gage is 4,048 ft from levels of Topographic Division, USGS. Prior to Mar. 16, 1927, chain gages at sites about 1,700 ft downstream at different datums.

REMARKS.--Records good. Diversions for irrigation of approximately 200,000 acres above station. No diversion between station and mouth of river. Flow regulated by Navajo Reservoir since June 28, 1962 (see station 09355100). Water quality records for the current year are published in Water Resources Data for Utah.

AVERAGE DISCHARGE.--70 years, 2,542 ft^3/s, 1,842,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD (1914-17, 1927-84).--Maximum discharge, 70,000 ft^3/s Sept. 10, 1927, gage height, 32.0 ft from rating curve extended above 31,000 ft^3/s on basis of slope-area measurement at gage height 26.62 ft; no flow July 3-13, 1934, Aug. 24-27, 29, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 6, 1911, which is greatest known at Shiprock, NM, probably exceeded that of Sept. 10, 1927 at this station but stage was not accurately determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,260 ft^3/s May 26, gage height, 10.03 ft, no other peak above base of 8,000 ft^3/s; minimum, 853 ft^3/s Nov. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3380	1440	1450	1580	2420	2810	2420	2760	6450	3290	2320	1910
2	3680	1370	1470	1580	2430	2870	2400	2670	6100	3210	1980	3920
3	4120	1340	1540	1580	2400	2920	2470	2530	5740	2860	1710	5850
4	2800	1020	1840	1530	2400	3230	2410	2560	5140	2860	1550	2660
5	2350	905	1810	1520	2430	3320	2290	2610	4790	2810	1480	2040
6	2040	889	1730	1600	2470	3220	2260	2770	4470	2570	1580	1760
7	2000	864	1530	1760	2470	3020	2260	2960	4320	2350	1880	1620
8	1890	874	1430	2060	2810	2990	2490	2960	3540	2160	2620	1430
9	1810	906	1450	2150	2920	2760	2630	2880	3360	2000	2070	1370
10	1760	1360	1500	2170	2950	2660	2660	2820	2990	1980	1770	1350
11	1730	1480	1530	2180	3000	2890	2760	3250	2590	2030	1540	1330
12	1700	1460	1540	2190	3050	3190	2610	3900	2330	2050	1470	1240
13	1670	1340	1540	2150	2940	3210	2570	4980	2220	2040	1340	1560
14	1680	1390	1540	2260	2920	2980	2520	5910	2390	1870	1500	1520
15	1710	1410	1500	2330	2930	3110	2520	6150	3140	2440	1640	1420
16	1610	1380	1490	2330	2930	3210	2660	6840	3910	2120	1650	1440
17	1600	1420	1520	2280	2870	2910	3000	7370	4130	2010	1760	1840
18	1570	1570	1480	2260	2950	2590	3310	6590	4010	2070	3240	1650
19	1550	1890	1480	2190	2890	2420	3660	6450	3470	1850	4100	1880
20	1510	1820	1510	2140	2820	2360	4230	6230	3080	1680	2970	1660
21	1500	1620	1550	2260	2820	2260	4310	6160	2790	1550	3680	1490
22	1510	1610	1510	2210	2830	2350	3820	6790	2830	1540	3020	1440
23	1490	1700	1510	2240	2830	2420	3340	7490	3090	1730	2190	1370
24	1530	1580	1490	2310	2820	2490	3100	7960	3300	2180	3400	1390
25	1480	1510	1600	2350	2810	2440	2960	8600	3110	1950	4840	1380
26	1440	1530	1680	2360	2840	2410	3040	9030	3110	1630	3390	1330
27	1450	1550	1920	2370	2840	2490	3320	8930	3340	1720	2750	1490
28	1450	1500	2380	2380	2830	2500	3140	8560	3640	1720	2600	1650
29	1420	1450	2720	2420	2830	2550	2940	8030	3530	1650	2210	1640
30	1400	1430	2200	2400	---	2700	2920	7400	3230	1900	2010	1610
31	1420	---	1570	2400	---	2700	---	6870	---	2410	1850	---
TOTAL	58250	41608	51010	65540	80450	85980	87020	171010	110140	66230	72110	54240
MEAN	1879	1387	1645	2114	2774	2774	2901	5516	3671	2136	2326	1808
MAX	4120	1890	2720	2420	3050	3320	4310	9030	6450	3290	4840	5850
MIN	1400	864	1430	1520	2400	2260	2260	2530	2220	1540	1340	1240
AC-FT	115500	82530	101200	130000	159600	170500	172600	339200	218500	131400	143000	107600

CAL YR 1983 TOTAL 1147567 MEAN 3144 MAX 8410 MIN 864 AC-FT 2276000
WTR YR 1984 TOTAL 943588 MEAN 2578 MAX 9030 MIN 864 AC-FT 1872000

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¼SW¼ sec.8, T.12 N., R.16 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank at mouth of Nutria Canyon, 0.9 mi upstream from Nutria Diversion Dam, 1.3 mi northeast of Upper Nutria, and 10.4 mi northwest of Ramah.

DRAINAGE AREA.--71.4 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Concrete control raised 1.0 ft June 6, 1975. Control raised 2.35 ft June 28, 1984. Altitude of gage is 6,860 ft, from topographic map.

REMARKS.--Records good except those for Octorber thru June, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 7.18 ft^3/s, 5,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 782 ft^3/s Apr. 14, 1973, gage height, 5.58 ft, datum then in use, from rating curve extended above 470 ft^3/s; maximum gage height, 6.92 ft Aug. 21, 1982 (backwater from aquatic growth); no flow Oct. 1-20, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft^3/s, and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	1200	111	4.61	Mar. 31	2030	215	4.84
Dec. 26	1915	79	4.47	Apr. 5	2000	*351	5.26
Mar. 3	2200	106	4.61	Sept. 16	2100	267	6.34
Mar. 10	1900	176	4.95	Sept. 26	1800	100	5.68

Minimum daily discharge, 0.01 ft^3/s at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	.10	.40	2.5	.46	2.3	56	5.3	.03	.04	.06	.34
2	38	.10	.55	2.2	.63	4.2	17	3.2	.03	.04	.19	.19
3	9.7	.10	.50	1.9	.50	28	30	2.1	.02	.03	.07	.15
4	2.9	.10	.50	1.8	.52	42	78	1.6	.01	.02	.06	.13
5	1.1	.10	.50	2.0	.62	20	173	1.2	.01	.01	.09	.17
6	.73	.10	.60	2.7	.74	5.7	212	.92	.02	.01	.15	.13
7	.42	.10	.44	3.2	1.0	3.5	216	.70	.02	.03	.12	.13
8	.27	.10	.5[illegible]	4.3	1.1	7.2	128	.73	.01	.02	.09	.13
9	.21	.10	.56	3.3	.86	36	40	.72	.01	.05	.09	.13
10	.22	.10	.51	1.6	.87	63	23	.49	.01	.04	.09	.14
11	.16	.10	.42	1.1	.72	52	13	.49	.02	.07	.08	.15
12	.12	.10	.48	.77	.54	29	9.3	.32	.02	.06	.08	.22
13	.10	.11	.37	.66	.57	22	6.8	.40	.04	.06	.09	.17
14	.10	.10	.36	.72	.96	9.3	4.7	.25	.04	.05	.16	.16
15	.07	.10	.33	.66	.76	6.8	3.4	.19	.05	.06	.14	.17
16	.06	.10	.28	.65	.75	3.8	2.7	.19	.03	.06	.11	23
17	.06	.10	.25	.70	.87	2.1	2.1	.10	.03	.07	.14	7.7
18	.06	.12	.26	.47	.71	1.4	1.5	.06	.02	.13	.15	.63
19	.06	.14	.27	.49	.59	1.0	1.6	.10	.02	.07	.18	.29
20	.06	.16	.34	.57	.51	.86	1.4	.09	.02	.06	.24	.21
21	.06	.31	.35	.44	.50	.60	1.9	.08	.02	.06	.12	.20
22	.06	.36	.32	.59	.58	.66	2.7	.06	.03	.12	.12	.14
23	.09	.25	.33	.48	.50	1.2	2.7	.06	.04	.13	.20	.13
24	.10	.25	.32	.45	.50	1.0	3.1	.04	.04	.16	.17	.13
25	.10	.33	3.2	.45	.58	.60	2.4	.04	.05	.09	.16	.14
26	.08	.40	39	.48	.47	.72	2.1	.02	.05	.06	.17	17
27	.06	.40	38	.47	.40	1.0	2.2	.02	.06	.07	.18	4.1
28	.06	.40	17	.43	.46	2.7	2.4	.02	.07	.07	.16	.53
29	.08	.40	3.8	.41	.66	19	4.4	.02	.05	.08	.15	.25
30	.10	.40	3.2	.41	---	28	7.5	.01	.06	.12	.13	.19
31	.10	---	2.6	.41	---	55	---	.01	---	[illegible]	.14	---
TOTAL	73.29	5.63	116.61	37.31	18.93	450.84	1051.3	19.53	.93	1.99	4.08	57.15
MEAN	2.36	.19	3.76	1.20	.65	14.5	35.0	.63	.031	.064	.13	1.91
MAX	38	.40	39	4.3	1.1	63	216	5.3	.07	.16	.24	23
MIN	.06	.10	.25	.41	.40	.60	1.4	.01	.01	.01	.06	.13
AC-FT	145	11	231	74	38	894	2090	39	1.8	3.9	8.1	113

CAL YR 1983 TOTAL 7946.44 MEAN 21.8 MAX 452 MIN .01 AC-FT 15760
WTR YR 1984 TOTAL 1837.59 MEAN 5.02 MAX 216 MIN .01 AC-FT 3640

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

LOCATION.--Lat 35°06'03", long 108°45'03", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank downstream from highway bridge on State Highway 36, 0.8 mi upstream from flow line of Black Rock Reservoir, 2.3 mi northeast of Black Rock, and 5.9 mi northeast of Zuni Pueblo.

DRAINAGE AREA.--810 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir".

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,480 ft, from topographic map.

REMARKS.--Water-discharge records good except those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years, 13.6 ft^3/s, 9,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft^3/s Aug. 4, 1974, gage height, 6.61 ft, from rating curve extended above 670 ft^3/s on basis of slope-area measurements at gage heights 4.05 ft, 3.94 ft, 5.16 ft, and 6.61 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
July 17	2115	*2580	6.75	Aug. 23	1830	558	4.68
Aug. 12	2245	309	4.23	Sept. 1	0830	534	4.66
Aug. 19	1915	252	4.07	Sept. 26	1645	678	4.97

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	40	4.4	6.8	3.0	2.3	2.6	2.5	.00	.00	.62	157
2	13	41	6.6	6.3	3.2	2.2	2.5	2.1	.00	.00	.76	18
3	8.4	42	8.0	6.0	2.6	2.1	2.7	1.7	.00	.00	1.1	5.3
4	2.5	44	7.3	5.5	2.8	2.0	2.3	1.5	.00	.00	1.5	2.7
5	1.5	43	6.8	5.3	2.6	2.3	2.2	1.4	.00	.00	2.2	1.7
6	1.1	35	6.3	5.3	2.8	2.2	2.2	1.4	.00	.00	2.7	1.3
7	.89	23	5.8	6.0	2.3	2.3	3.3	1.3	.00	.00	2.1	1.1
8	.80	16	5.5	6.4	2.2	1.9	3.3	1.1	.00	.00	1.5	1.1
9	.80	13	6.3	4.7	2.6	2.2	2.5	1.0	.00	.00	.98	1.0
10	.98	11	5.8	3.4	2.2	2.2	2.2	.97	.00	.00	.46	.97
11	.84	9.8	6.3	3.1	2.2	2.1	3.1	.91	.00	.00	.19	1.0
12	.54	9.0	6.3	2.8	1.2	2.1	11	.94	.00	.00	7.5	4.7
13	.64	7.4	6.3	3.0	2.0	2.1	10	.91	.00	.00	4.5	1.7
14	.70	6.7	6.6	2.6	2.2	2.0	11	.88	.00	.00	3.3	2.3
15	.75	5.2	5.5	3.4	2.1	2.0	9.9	.94	.00	.00	2.7	2.1
16	.87	4.2	6.3	2.8	2.3	2.0	8.3	.88	.00	.00	1.0	2.7
17	.97	4.3	5.8	2.8	2.1	1.9	6.9	.97	.00	116	.77	9.7
18	.98	4.2	5.5	2.8	2.2	2.1	6.6	.54	.00	26	1.1	4.2
19	.87	4.4	5.3	2.4	2.4	2.2	5.9	.39	.00	.24	12	2.1
20	.96	3.9	5.0	2.5	2.0	2.1	4.8	.22	.00	.00	17	1.7
21	1.0	3.9	5.0	2.7	2.1	2.0	4.7	.09	.00	.00	3.0	1.7
22	4.6	5.0	4.4	2.6	2.2	2.2	4.5	.01	.00	.00	1.6	1.6
23	34	4.1	4.6	2.6	2.3	2.4	4.0	.00	.00	.00	54	1.7
24	36	3.9	4.1	2.6	2.2	2.2	3.6	.00	.00	.00	22	1.6
25	40	4.7	4.0	2.9	2.4	2.1	3.0	.00	.00	.00	6.8	1.7
26	38	6.0	4.9	3.2	2.2	2.6	2.7	.00	.00	.00	2.4	244
27	38	3.6	6.0	3.2	2.1	5.9	2.9	.00	.00	.00	1.6	38
28	38	3.8	6.0	3.0	2.0	5.6	3.0	.00	.00	.00	1.2	6.4
29	38	4.2	7.1	3.3	2.3	4.8	3.2	.00	.00	.04	1.2	3.9
30	41	4.1	6.8	3.4	---	3.6	3.0	.00	.00	1.4	.92	2.6
31	40	---	7.3	3.3	---	3.0	---	.00	---	.68	.82	---
TOTAL	389.99	410.4	181.9	116.7	66.8	78.7	137.9	22.65	.00	144.36	159.52	525.57
MEAN	12.6	13.7	5.87	3.76	2.30	2.54	4.60	.73	.000	4.66	5.15	17.5
MAX	41	44	8.0	6.8	3.2	5.9	11	2.5	.00	116	54	244
MIN	.54	3.6	4.0	2.4	1.2	1.9	2.2	.00	.00	.00	.19	.97
AC-FT	774	814	361	231	132	156	274	45	.00	286	316	1040

CAL YR 1983 TOTAL 14079.52 MEAN 38.6 MAX 1000 MIN .00 AC-FT 27930
WTR YR 1984 TOTAL 2234.49 MEAN 6.11 MAX 244 MIN .00 AC-FT 4430

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Data collected and analyzed by USGS except chemical data analyzed by BIA Laboratory in Gallup, New Mexico.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	PH (STAND-ARD UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT									
04...	1557	2.3	422	7.7	130	11	40	8.5	28
NOV									
04...	1605	44	393	8.1	150	0	32	17	23
DEC									
06...	1637	7.7	602	8.3	250	22	62	22	53
FEB									
17...	1114	2.6	633	8.4	220	0	58	18	60
MAR									
14...	1507	2.1	697	8.6	230	0	54	22	58
MAY									
09...	0841	1.1	575	8.4	200	0	52	17	58
JUL									
19...	0810	.11	185	7.6	70	31	22	3.7	4.6
AUG									
23...	0829	1.5	587	8.6	190	17	54	13	46

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE FET-FLD (MG/L AS HCO3) (00440)	CAR-BONATE FET-FLD (MG/L AS CO3) (00445)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT								
04...	1	6.7	140	5	5.4	5.3	.31	269
NOV								
04...	.8	3.5	170	10	39	6.0	.40	232
DEC								
06...	2	4.3	240	15	78	16	.30	404
FEB								
17...	2	2.7	250	15	64	15	.30	414
MAR								
14...	2	3.9	270	16	81	21	.40	429
MAY								
09...	2	4.3	230	18	58	17	.40	230
JUL								
19...	.2	2.7	48	<2	30	3.2	.44	118
AUG								
23...	2	7.8	180	17	70	16	.47	376

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)
OCT		
04...	1557	1600
NOV		
04...	1605	1400
DEC		
06...	1637	1300
FEB		
17...	1114	1100
MAR		
14...	1507	1200
MAY		
09...	0841	620
JUL		
19...	0810	0
AUG		
23...	0829	0

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 04...	1430	2.3	21.0	420	2.6	81
NOV 04...	1400	44	4.0	1310	156	14
DEC 06...	1400	7.7	.0	1610	33	17
FEB 14...	1255	1.8	5.5	361	1.8	50
MAY 08...	1230	1.1	23.0	197	.59	21
AUG 23...	1400	1.5	29.0	649	2.6	52

09395500 PUERCO RIVER AT GALLUP, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 35°31'45", long 108°44'41", in NE¼SE¼ sec. 16, T.15 N., R.18 W., McKinley County, Hydrologic Unit 15020006, near center of span on downstream side of Third Street Bridge in Gallup, 0.8 mi upstream from Gamerco Wash, 3.5 mi downstream from Hogback, and 4.9 mi downstream from South Fork.

DRAINAGE AREA.--558 mi^2.

PERIOD OF RECORD.--Water years 1975-77, 1979 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
NOV											
03...	1500	2.1	950	860	8.8	8.3	19.0	14.5	--	47	160
MAR											
14...	1430	1.5	1050	1050	8.5	8.4	15.0	14.0	8.0	--	180
MAY											
08...	1440	1.6	1000	1230	8.7	8.2	20.0	24.0	--	--	160
JUL											
18...	1200	5.1	--	867	8.1	7.8	24.0	24.0	--	880	170

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
NOV											
03...	0	48	10	140	5	3.6	--	--	220	16	.60
MAR											
14...	0	52	13	170	6	3.5	--	--	280	22	.80
MAY											
08...	0	45	12	210	7	3.5	280	14	350	22	.70
JUL											
18...	37	49	12	110	4	5.1	--	--	230	12	.90

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
NOV										
03...	10	580	1.8	1.8	.090	1.5	3.4	.060	.050	14
MAR										
14...	11	700	--	--	--	--	--	--	--	--
MAY										
08...	9.7	820	--	--	--	--	--	--	--	--
JUL										
18...	8.5	510	1.3	1.2	.200	21	22	4.90	.030	120

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)
NOV										
03...	1500	5	2	100	<1	<1	20	<10	28	2
MAR										
14...	1430	--	--	110	--	--	--	--	--	--
MAY										
08...	1440	--	--	150	--	--	--	--	--	--
JUL										
18...	1200	--	<1	100	--	<1	--	<10	--	6

09395500 PUERCO RIVER AT GALLUP, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
03...	6	19	<1	.1	<.1	37	37	320	6
MAR									
14...	8	--	--	--	--	--	--	--	--
MAY									
08...	30	--	--	--	--	--	--	--	--
JUL									
18...	16	--	5	--	<.1	--	--	--	7

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
03...	1500	1600	120	180	450	150	390	.07	1400
JUL									
18...	1200	1000	3200	100	1400	87	1200	.15	920

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
03...	1500	2.1	14.5	1810	10	99
JUL						
18...	1200	5.1	24.0	24600	339	100

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi upstream from Mogollon Creek, 7 mi northeast of Gila, and at mile 572.5.

DRAINAGE AREA.--1,864 mi^2.

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1944 (M), 1949 (M). WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,655.8 ft National Geodetic Vertical Datum of 1929, (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft upstream at same datum.

REMARKS.--Records good. Diversions for irrigation of about 500 acres above station. Several observations of water temperature were made during the year. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--57 years (water years 1928-84), 142 ft^3/s, 102,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft^3/s Dec. 18, 1978, gage height, 12.5 ft from floodmark, from rating curve extended above 7,000 ft^3/s on basis of slope-area measurement of peak flow; maximun gage height, 17.2 ft from floodmark, Sept. 29, 1941; minimum, 14 ft^3/s July 15, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in November 1905, December 1906, and January 1916.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	2115	*15000	8.65	Dec. 27	2230	827	2.11
Dec. 3	0400	1270	2.69				

Minimum discharge, 39 ft^3/s June 14, 15, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	753	113	106	260	120	92	108	107	59	48	75	160
2	7210	110	188	250	118	92	106	103	57	51	61	131
3	8390	108	1090	257	118	92	104	99	55	55	77	123
4	3200	116	682	252	118	93	101	95	52	54	111	115
5	1570	135	516	249	116	94	98	92	50	56	221	102
6	897	139	390	263	116	101	96	90	49	53	148	90
7	617	128	300	320	115	101	98	91	49	50	209	81
8	469	120	249	353	114	96	96	98	48	48	327	76
9	375	114	216	348	115	96	99	104	46	46	210	72
10	319	111	194	328	114	98	99	105	44	44	152	67
11	279	108	181	299	113	98	99	103	43	42	239	66
12	251	105	170	272	112	97	100	101	42	51	281	63
13	221	103	163	249	109	100	103	100	41	51	217	60
14	194	101	156	237	108	103	106	100	40	51	232	61
15	179	99	150	233	108	107	111	113	41	49	215	66
16	167	98	144	208	109	114	115	125	42	45	179	66
17	157	96	138	197	106	120	117	116	41	43	169	64
18	149	98	134	188	105	124	121	105	40	68	177	61
19	144	107	129	176	105	128	124	96	41	102	141	58
20	161	107	125	165	109	131	126	88	46	65	137	57
21	167	115	123	160	108	130	127	80	49	74	113	56
22	170	158	118	152	104	126	127	76	46	124	110	58
23	152	152	115	149	99	125	122	72	40	168	117	62
24	142	133	111	146	99	125	115	69	86	124	113	61
25	134	124	109	144	97	124	112	64	58	102	106	58
26	128	126	112	138	95	121	115	62	56	86	129	66
27	126	124	301	134	95	119	123	60	56	80	164	81
28	125	118	738	133	95	118	120	57	62	72	212	86
29	124	113	557	129	93	118	116	57	57	68	256	83
30	121	109	379	126	---	113	111	59	53	68	242	81
31	117	---	291	122	---	110	---	61	---	71	220	---
TOTAL	27208	3488	8375	6637	3133	3406	3315	2748	1489	2109	5360	2331
MEAN	878	116	270	214	108	110	111	88.6	49.6	68.0	173	77.7
MAX	8390	158	1090	353	120	131	127	125	86	168	327	160
MIN	117	96	106	122	93	92	96	57	40	42	61	56
AC-FT	53970	6920	16610	13160	6210	6760	6580	5450	2950	4180	10630	4620

CAL YR 1983 TOTAL 130545 MEAN 358 MAX 8390 MIN 38 AC-FT 258900
WTR YR 1984 TOTAL 69599 MEAN 190 MAX 8390 MIN 40 AC-FT 138000

09430600 MOGOLLON CREEK NEAR CLIFF, NM
(Hydrologic bench-mark station)

LOCATION.--Lat 33°10'01", long 108°38'58", in SE¼SE¼ sec.13, T.13 S., R.18 W., Grant County, Hydrologic Unit 15040001, on right bank 0.3 mi downstream from Rain Creek, 0.8 mi downstream from Gila Wilderness Boundary, 12 mi upstream from mouth, and 14 mi north of Cliff.

DRAINAGE AREA.--69 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft, from topographic map.

REMARKS.--Water-discharge records good except those for July and August, which are fair.

AVERAGE DISCHARGE.--17 years, 29.8 ft^3/s, 21,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft^3/s Aug. 12, 1967, gage height, 13.7 ft, from floodmarks, from rating curve extended above 220 ft^3/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Independent peak discharges above base of 160 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	Unknown	*1920	6.50	Jan. 6	2130	121	2.65
Dec. 28	0815	190	3.00	Aug. 29	Unknown	334	3.58

No flow June 13-19, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	706	8.2	12	63	18	8.7	12	8.4	1.6	2.0	6.0	26
2	1090	7.9	55	64	19	9.0	12	8.0	1.4	2.6	30	21
3	540	7.6	150	60	19	9.7	12	8.2	1.3	10	25	17
4	268	11	130	59	19	11	11	9.0	1.2	8.7	51	14
5	157	12	110	63	19	12	10	11	1.1	4.4	32	12
6	116	9.9	95	112	19	12	11	12	1.0	19	32	11
7	100	9.0	82	113	19	11	17	12	.93	25	45	9.4
8	70	8.5	70	102	18	10	15	10	.82	10	32	8.5
9	50	8.3	62	88	18	9.8	15	9.3	.65	5.8	22	7.6
10	40	7.9	53	75	16	9.8	15	8.3	.38	4.1	20	7.0
11	25	7.8	46	66	16	11	15	7.9	.21	3.6	20	6.6
12	20	7.7	40	56	15	12	19	7.2	.04	3.2	17	5.8
13	17	7.6	35	49	14	13	22	6.5	.00	3.3	23	5.2
14	16	7.6	30	45	14	16	24	5.8	.00	2.6	24	4.8
15	15	7.3	27	38	13	20	25	6.5	.00	1.9	17	10
16	13	7.0	25	34	13	22	25	6.4	.00	1.7	15	7.0
17	12	6.9	24	33	12	23	25	5.1	.00	3.3	14	5.3
18	12	9.9	23	30	12	24	25	4.5	.00	7.7	12	4.4
19	11	14	21	27	13	23	23	4.0	.00	9.1	11	3.7
20	23	9.9	21	25	13	21	21	3.7	.09	6.7	11	3.0
21	17	17	20	23	11	21	18	3.3	.74	6.7	10	5.3
22	13	20	18	22	11	23	15	3.0	.10	13	10	3.5
23	12	16	17	20	10	23	13	2.7	.00	8.9	16	2.9
24	11	14	16	19	9.5	20	12	2.4	.83	6.6	14	2.3
25	12	16	16	18	9.3	18	12	2.2	7.7	4.6	9.9	2.3
26	10	16	18	17	9.1	17	13	2.0	6.2	3.7	9.2	7.6
27	10	14	88	16	8.8	18	13	1.8	3.8	3.7	16	31
28	11	14	163	16	8.8	16	11	1.7	7.3	3.9	35	14
29	9.6	13	114	16	8.5	15	10	2.6	4.8	6.0	80	8.9
30	9.0	13	77	17	---	14	9.3	2.4	3.3	14	52	7.0
31	8.6	---	66	18	---	13	---	1.9	---	8.1	40	---
TOTAL	3424.2	329.0	1724	1404	405.0	486.0	480.3	179.8	45.49	213.9	751.1	274.1
MEAN	110	11.0	55.6	45.3	14.0	15.7	16.0	5.80	1.52	6.90	24.2	9.14
MAX	1090	20	163	113	19	24	25	12	7.7	25	80	31
MIN	8.6	6.9	12	16	8.5	8.7	9.3	1.7	.00	1.7	6.0	2.3
AC-FT	6790	653	3420	2780	803	964	953	357	90	424	1490	544

CAL YR 1983 TOTAL 22177.24 MEAN 60.8 MAX 1090 MIN .33 AC-FT 43990
WTR YR 1984 TOTAL 9716.89 MEAN 26.5 MAX 1090 MIN .00 AC-FT 19270

NOTE: No gage-height record Aug. 14 to Sept. 19.

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)
NOV										
01...	0910	8.2	130	127	7.7	7.9	17.5	11.0	.30	12.8
JAN										
11...	1000	69	80	94	7.4	7.4	-1.5	2.0	3.5	11.0
APR										
11...	1000	16	95	86	8.0	7.8	19.0	11.0	.80	10.0
JUN										
07...	0900	1.0	100	127	8.0	8.1	20.0	15.0	.50	--
SEP										
18...	1330	4.1	110	113	9.1	8.3	27.0	22.0	.80	7.8

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)
NOV										
01...	49	0	14	3.4	6.3	.4	1.1	62	.000	42
JAN										
11...	34	1	9.7	2.4	4.7	.4	1.0	40	.000	33
APR										
11...	32	3	9.2	2.1	4.7	.4	.90	--	--	--
JUN										
07...	48	2	14	3.1	6.8	.4	1.0	56	.000	46
SEP										
18...	43	0	13	2.6	5.6	.4	1.0	32	15	51

DATE	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)
NOV										
01...	17	1.6	.30	21	85	95	<.10	.060	.020	.020
JAN										
11...	16	1.3	.30	20	78	76	<.10	.060	.030	.030
APR										
11...	10	1.0	.40	19	59	65	<.10	<.010	<.010	.010
JUN										
07...	12	1.1	.40	21	80	87	<.10	.060	.050	.030
SEP										
18...	11	1.1	.40	18	83	99	<.10	.050	.030	<.010

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
JAN											
11...	1000	600	1	4	<.5	<1	<1	<3	3	94	1
APR											
11...	1000	30	<1	5	<.5	<1	<1	<3	2	13	<1
JUN											
07...	0900	10	<1	8	<1.0	<1	<1	<3	2	4	4

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JAN 11...	5	2	.1	<10	4	<1	<1	52	<6	10
APR 11...	<4	<1	<.1	<10	<1	<1	<1	47	<6	12
JUN 07...	<4	<1	<.1	<10	4	<1	<1	76	<6	3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
NOV 01...	0910	<2.0	<.4	1.7	<.4	1.4	<.4	.05	.17

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 01...	0910	K1	K4
JAN 11...	1000	<1	K36
APR 11...	1000	<1	K1
JUN 07...	0900	K3	20
SEP 18...	1330	K12	28

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 01...	0910	8.2	11.0	58	1.3	96
JAN 11...	1000	69	2.0	79	15	92
APR 11...	1000	16	11.0	10	.43	99
JUN 07...	0900	1.0	15.0	23	.06	65
SEP 18...	1330	4.1	22.0	8	.09	66

09431100 MANGAS CREEK BELOW MANGAS SPRINGS, NM

WATER-QUALITY RECORDS

LOCATION.--Lat 32°50'48", long 108°30'57", in NW¼NE¼ sec.8, T.17S., R.16W., Grant County, Hydrologic Unit 15040002, 0.4 mi northwest of Mangas Springs, NM.

DRAINAGE AREA.--177 mi^2.

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Location formerly published as lat 32°50'57", long 108°31'13", in SE¼SW¼ sec.5, T.17S., R.16W., 0.1 mi upstream from Blacksmith Canyon and 15 mi southeast of Gila.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV 03...	0830	2.2	700	673	8.0	7.9	12.5	15.0	310	140
JAN 10...	1530	2.3	700	--	7.9	--	8.5	13.5	--	--
MAR 22...	1300	--	560	709	8.0	8.0	16.0	12.0	320	140
JUN 07...	1100	2.6	650	709	7.9	8.3	26.0	21.0	310	130
JUL 10...	1600	.17	600	712	8.1	8.1	24.0	20.0	320	150

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV 03...	97	17	28	.7	2.4	160	18	.40	33	460
JAN 10...	--	--	--	--	--	--	--	--	--	--
MAR 22...	100	17	28	.7	1.4	150	17	.40	31	460
JUN 07...	95	17	20	.5	1.5	150	17	.40	32	440
JUL 10...	100	17	28	.7	2.5	140	20	.40	32	440

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV 03...	0830	30	7
MAR 22...	1300	30	<3
JUN 07...	1100	30	9
JUL 10...	1600	30	11

09431500 GILA RIVER NEAR REDROCK, NM

(National stream-quality accounting network and radiochemical network station)

LOCATION.--Lat 32°43'37", long 108°40'30", in W sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, on left bank 0.2 mi downstream from Copper Canyon, 0.2 mi upstream from lower end of box canyon, 4.7 mi northeast of Redrock, 14 mi downstream from Mangas Creek, and at mile 539.2.

DRAINAGE AREA.--2,829 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only for some periods, published in WSP 1313. Published as "near Cliff" 1904-7.

REVISED RECORDS.--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,090 ft, from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--Water-discharge records fair. Diversions for irrigation of about 5,000 acres above station.

AVERAGE DISCHARGE.--68 years (water years 1906, 1909-10, 1913-55, 1963-84), 203 ft^3/s, 147,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft^3/s Dec. 19, 1978, gage height, 29.8 ft in gage well, 34.1 ft from floodmarks, from rating curve extended above 9,500 ft^3/s on basis of slope-area measurement of peak flow; minimum, 2.2 ft^3/s Aug. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 26,300 ft^3/s at 1530 hours Oct. 2, gage height, 19.26 ft in gage well, no other peak above base of 3,000 ft^3/s; minimum, 16 ft^3/s June 17, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2060	184	189	399	133	110	117	129	43	48	55	382
2	12100	179	208	374	130	112	119	127	40	38	50	307
3	12600	166	1490	387	125	95	128	129	37	45	65	258
4	3640	228	1230	410	119	93	129	132	34	64	192	246
5	2070	333	1000	400	119	97	139	111	32	40	538	240
6	1450	258	799	543	141	128	131	97	30	47	334	195
7	1150	234	625	641	134	141	124	103	25	45	319	140
8	922	220	489	608	143	135	110	89	25	44	335	126
9	722	204	420	576	144	129	115	100	28	39	414	108
10	546	202	353	532	148	119	131	100	22	51	348	93
11	422	190	304	490	132	93	127	95	27	45	490	72
12	342	161	279	453	113	106	118	83	24	67	324	65
13	293	166	267	415	124	118	119	81	36	55	346	67
14	240	149	265	383	122	129	99	90	37	45	283	57
15	209	164	249	345	126	131	101	95	37	42	262	50
16	192	161	230	326	133	111	103	120	33	37	221	61
17	177	158	215	307	133	109	116	118	20	93	299	55
18	149	152	204	280	112	110	135	115	19	45	181	53
19	150	172	191	268	115	108	151	107	24	65	245	61
20	218	174	186	239	111	121	144	97	20	61	207	48
21	189	192	177	199	124	139	151	93	19	47	133	57
22	198	278	170	184	142	143	122	86	20	77	214	62
23	196	276	157	170	130	132	124	81	22	153	117	38
24	185	243	139	172	141	117	129	76	89	211	123	46
25	178	219	135	183	132	118	138	70	181	152	126	55
26	166	219	145	180	111	130	132	65	99	107	308	68
27	166	205	156	177	113	138	168	61	75	88	313	112
28	168	205	933	159	129	149	168	57	96	76	362	112
29	154	196	1060	136	119	151	131	53	72	60	396	165
30	151	196	743	138	---	142	126	50	60	51	449	78
31	171	---	511	144	---	121	---	46	---	50	552	---
TOTAL	41574	6084	13519	10218	3698	3775	3845	2856	1326	2088	8601	3477
MEAN	1341	203	436	330	128	122	128	92.1	44.2	67.4	277	116
MAX	12600	333	1490	641	148	151	168	132	181	211	552	382
MIN	149	149	135	136	111	93	99	46	19	37	50	38
AC-FT	82460	12070	26810	20270	7330	7490	7630	5660	2630	4140	17060	6900

CAL YR 1983 TOTAL 195926 MEAN 537 MAX 12600 MIN 19 AC-FT 388600
WTR YR 1984 TOTAL 101061 MEAN 276 MAX 12600 MIN 19 AC-FT 200500

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)
NOV 02...	0930	184	335	328	8.4	8.1	17.0	14.0	4.2	12.2
JAN 10...	1200	519	230	228	7.9	8.0	9.5	8.0	15	10.1
MAR 20...	1300	112	260	338	8.3	8.4	22.0	15.0	4.5	9.0
JUN 06...	1200	37	360	409	8.4	8.4	27.0	20.0	2.2	10.2
SEP 20...	1200	48	380	394	9.0	8.5	27.0	22.0	5.0	8.4

DATE	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)
NOV 02...	110	0	34	7.2	27	1	2.7	150	8.0	110
JAN 10...	81	0	24	5.0	16	.8	1.3	99	.000	81
MAR 20...	110	0	32	6.8	27	1	2.0	--	--	--
JUN 06...	140	2	42	8.4	35	1	2.4	150	9.0	140
SEP 20...	140	0	43	8.5	32	1	2.5	160	16	160

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
NOV 02...	31	9.7	1.9	35	218	240	.18	.090	.090	.050
JAN 10...	22	5.8	1.2	30	159	150	<.10	.010	.080	.040
MAR 20...	30	11	2.0	32	219	220	.11	.050	.050	.050
JUN 06...	39	13	2.0	34	257	270	<.10	.010	.070	.050
SEP 20...	33	12	2.0	29	251	270	<.10	.030	.040	.010

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
JAN 10...	1200	110	<1	12	<.5	<1	<1	<3	2	42	<1
JUN 06...	1200	20	<1	21	2.0	<1	<1	<3	2	4	<1
SEP 20...	1200	<10	1	26	<1.0	<1	<1	<3	3	14	2

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
JAN 10...	16	4	.1	<10	5	<1	<1	91	<6	31
JUN 06...	22	26	<.1	<10	<1	<1	<1	190	7	<3
SEP 20...	27	7	<.1	<10	1	<1	<1	190	<6	8

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
NOV 02...	0930	<5.4	.9	3.3	1.0	2.8	.9	.03	1.6
JUN 06...	1200	<7.0	<.4	3.8	.5	3.3	.4	.05	2.5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 02...	0930	K14	100
JAN 10...	1200	K15	45
MAR 20...	1300	K5	46
JUN 06...	1200	K5	38
SEP 20...	1200	29	K24

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 02...	0930	184	14.0	71	35	96
JAN 10...	1200	519	8.0	110	154	79
MAR 20...	1300	112	15.0	21	6.4	80
JUN 06...	1200	37	20.0	18	1.8	93
SEP 20...	1200	48	22.0	16	2.1	82

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, on left bank at head of canyon, 1.4 mi downstream from Blue Creek, 10 mi east of Virden, 16 mi upstream from New Mexico-Arizona State line, and at mile 523.6.

DRAINAGE AREA.--3,203 mi^2, excluding Animas River Basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi downstream, and in Sunset Canal. Published as Gila River near Duncan, AZ, 1914-15 and as Gila River at Fuller's Ranch, near Duncan, AZ, 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,875 ft, from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi downstream, 1,000 ft upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum. Since April 18, 1980, supplementary gage on left bank 800 ft downstream at same datum. Since June 1980, crest-stage gage at supplementary gage site.

REMARKS.--Records good except those above 1,500 ft^3/s which are fair. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

AVERAGE DISCHARGE.--57 years (water years 1928-84), 188 ft^3/s, 136,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft^3/s Dec. 19, 1978, gage height, 29.00 ft from rating curve extended above 38,000 ft^3/s on basis of slope-area measurement of peak flow; minimum, 1 ft^3/s July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,900 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	1830	*15520	13.8	Dec. 3	1900	1900	5.58

Minimum daily, 26 ft^3/s June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	664	190	176	495	192	137	135	123	39	66	55	243
2	7300	192	213	449	184	137	132	121	38	59	71	192
3	11000	190	1150	438	180	123	135	110	38	56	70	163
4	4970	400	1450	459	176	118	142	113	38	64	82	148
5	2610	300	1040	462	174	118	144	106	38	59	202	148
6	1780	250	820	583	178	130	144	91	40	56	244	136
7	1220	230	667	689	176	148	142	90	38	54	238	116
8	966	210	548	641	176	151	128	91	34	54	214	102
9	757	190	473	612	182	146	122	88	35	51	269	94
10	624	180	415	583	180	142	132	88	36	52	262	86
11	513	170	367	548	176	123	132	90	34	51	528	79
12	418	160	337	513	166	117	132	85	34	55	459	77
13	376	150	320	466	155	130	130	79	33	63	355	73
14	337	140	317	435	155	135	123	77	35	54	295	73
15	309	140	303	408	153	139	115	82	36	52	276	62
16	282	140	293	389	157	133	114	92	37	50	261	62
17	259	140	282	370	166	123	114	97	34	55	295	60
18	232	140	272	346	170	123	128	95	30	73	217	64
19	218	140	249	329	166	122	139	97	30	64	190	66
20	293	140	244	312	164	123	142	85	29	70	272	66
21	266	140	232	277	160	142	140	80	28	59	183	63
22	247	200	223	264	157	146	118	83	28	64	207	65
23	244	250	214	247	159	144	109	79	26	100	147	61
24	237	230	197	235	153	139	106	73	27	132	136	60
25	225	220	182	239	164	128	109	66	78	125	134	63
26	212	210	186	235	142	128	111	58	91	96	178	71
27	201	200	188	232	133	140	118	51	76	87	244	80
28	201	190	527	223	146	149	118	48	82	76	232	87
29	188	180	927	207	144	159	128	47	82	72	245	102
30	180	180	772	192	---	159	125	41	73	62	284	88
31	178	---	604	198	---	142	---	41	---	55	310	---
TOTAL	37507	5792	14188	12076	4784	4194	3807	2567	1297	2086	7155	2850
MEAN	1210	193	458	390	165	135	127	82.8	43.2	67.3	231	95.0
MAX	11000	400	1450	689	192	159	144	123	91	132	528	243
MIN	178	140	176	192	133	117	106	41	26	50	55	60
AC-FT	74400	11490	28140	23950	9490	8320	7550	5090	2570	4140	14190	5650

CAL YR 1983 TOTAL 191316 MEAN 524 MAX 11000 MIN 26 AC-FT 379500
WTR YR 1984 TOTAL 98303 MEAN 269 MAX 11000 MIN 26 AC-FT 195000

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft downstream from Rainbow Bridge Canyon, 1.7 mi northwest of Reserve, and at mile 563.1.
DRAINAGE AREA.--350 mi^2, approximately.
PERIOD OF RECORD.--March 1959 to current year.
REVISED RECORDS.--WDR NM-78-1: 1977.
GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft, from topographic map. Prior to Dec. 15, 1972 at site 1,800 ft upstream at different datum.
REMARKS.--Records good. Possible minor regulation by Luna Lake, 27 mi upstream. Diversions for irrigation of about 280 acres above station. Several observations of water temperature were made during the year.
AVERAGE DISCHARGE.--25 years, 26.6 ft^3/s, 19,270 acre-ft/yr.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft^3/s Oct. 1, 1983, gage height, 11.71 ft recorded, 11.3 ft, from outside floodmarks, from rating curve extended above 1,400 ft^3/s on basis of slope-area measurement of peak flow; minimum, 1.0 ft^3/s Mar. 16, 1959.
EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 15 ft, as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft^3/s at Alma (downstream). See WSP 1313.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base 450 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Sept. 30	1315	**7870	9.63	Aug. 10	1900	553	3.04
Oct. 1	1700	*9830	11.71	Aug. 27	2230	1040	3.65
July 29	1415	516	3.40				

Minimum discharge, 4.6 ft^3/s Aug. 10.
** Peak for 1983 Water Year not previously published.

REVISIONS.--Revised maximum discharges for water years 1973, 1979, 1980. These figures supersede those published in the reports for those water years.

Water Year	Date	Discharge (ft^3/s)	Gage height (ft)	Water Year	Date	Discharge (ft^3/s)	Gage Height (ft)
1973	Oct. 20, 1972	7,000	8.05	1979	Dec. 19, 1978	2,800	5.85
1979	Nov. 25, 1978	6,800	9.40	1980	Aug. 24, 1980	1,850	5.40

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4920	28	21	24	24	14	17	13	6.4	6.8	11	41
2	3640	28	26	29	24	15	17	12	6.3	6.7	9.3	57
3	1780	27	35	26	22	15	16	10	6.2	6.3	24	35
4	790	28	41	25	21	14	16	10	6.3	6.2	8.7	25
5	336	29	43	26	20	15	16	11	6.4	6.2	25	17
6	256	28	32	29	20	15	15	10	6.5	6.3	16	13
7	193	27	30	34	20	16	16	9.1	6.3	6.6	9.7	12
8	143	25	28	36	20	16	15	8.3	6.2	6.3	6.6	11
9	128	25	25	35	19	16	20	8.0	6.1	6.1	5.7	10
10	108	24	25	30	20	15	20	7.5	5.8	6.4	26	10
11	94	22	23	27	17	15	17	7.5	5.7	6.3	16	9.8
12	86	22	23	25	16	15	17	7.5	5.8	13	15	9.6
13	77	21	22	25	17	15	16	7.5	5.6	6.5	42	9.4
14	70	20	22	24	17	14	14	7.8	5.6	5.3	18	9.2
15	60	17	22	22	16	15	13	8.0	5.7	5.0	12	9.0
16	50	17	20	20	17	15	12	8.2	5.7	5.0	50	9.4
17	45	16	18	23	17	15	11	8.3	5.6	5.6	20	10
18	43	16	17	20	16	15	11	8.2	5.6	5.8	20	11
19	43	16	18	19	17	15	11	7.9	5.6	16	16	11
20	50	16	20	20	17	13	12	8.0	5.6	18	16	9.4
21	70	22	19	19	16	13	12	8.1	5.6	19	15	11
22	53	20	19	20	16	12	11	7.8	5.7	12	19	13
23	43	19	18	17	16	14	11	7.3	5.7	10	28	14
24	38	20	17	20	15	13	12	6.8	5.7	9.4	44	12
25	34	24	17	20	15	13	11	6.4	6.6	8.1	36	11
26	32	22	20	20	15	13	13	6.2	7.3	7.7	50	20
27	32	21	21	20	15	16	14	6.4	7.5	7.6	96	22
28	31	21	21	19	15	16	14	6.5	7.2	7.5	228	15
29	31	21	22	21	15	16	14	6.4	8.3	29	75	12
30	31	21	23	22	---	16	14	6.4	7.3	12	51	9.8
31	29	---	24	23	---	18	---	6.3	---	13	42	---
TOTAL	13336	663	732	740	515	458	428	252.4	185.9	285.7	1051.0	468.6
MEAN	430	22.1	23.6	23.9	17.8	14.8	14.3	8.14	6.20	9.22	33.9	15.6
MAX	4920	29	43	36	24	18	20	13	8.3	29	228	57
MIN	29	16	17	17	15	12	11	6.2	5.6	5.0	5.7	9.0
AC-FT	26450	1320	1450	1470	1020	908	849	501	369	567	2080	929

CAL YR 1983 TOTAL 31638.2 MEAN 86.7 MAX 4920 MIN 3.8 AC-FT 62750
WTR YR 1984 TOTAL 19115.6 MEAN 52.2 MAX 4920 MIN 5.0 AC-FT 37920

NOTE: No gage-height record May 5 to June 4.

09442692 TULAROSA RIVER ABOVE ARAGON, NM

LOCATION.--Lat 33°53'29", long 108°30'54", in NE¼NW¼ sec.9, T.5 S., R.16 W., Catron County, Hydrologic Unit 15040004, on right bank 0.4 mi upstream from first diversion, 1.4 mi northeast of Aragon, and 8 mi upstream from Apache Creek.

DRAINAGE AREA.--94 mi^2.

PERIOD OF RECORD.--July 1966 to current year. 1955 to 1965 at site 0.6 mi upstream (drainage area, 89 mi^2), annual maximum only.

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,750 ft, from topographic map.

REMARKS.--Records good except those for July thru September, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years, 3.40 ft^3/s, 2,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 660 ft^3/s Oct. 2, 1983. gage height, 3.90 ft in gage well, 4.23 ft from floodmarks, from rating curve extended above 80 ft^3/s on basis of slope-area measurements at gage heights 3.13 ft and 3.90 ft; minimum, 1.1 ft^3/s July 22, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage Height (ft)
Oct. 2	1015	*660	3.90	July 21	1445	26	1.87
July 17	1745	29	1.94				

Minimum discharge, 1.9 ft^3/s Apr. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	2.6	2.7	2.4	2.4	2.6	2.3	2.5	2.9	3.1	2.8	3.1
2	186	2.6	2.7	2.4	2.4	2.6	2.3	2.5	2.9	3.1	2.8	3.1
3	29	2.6	2.7	2.4	2.4	2.5	2.3	2.5	2.9	3.2	2.8	3.2
4	8.7	2.7	2.7	2.4	2.4	2.5	2.3	2.5	3.0	3.1	2.8	3.2
5	4.8	2.6	2.7	2.4	2.4	2.5	2.2	2.6	2.9	3.2	2.8	3.3
6	3.5	2.6	2.7	2.3	2.4	2.5	2.2	2.6	2.9	3.0	2.8	3.2
7	3.2	2.6	2.7	2.3	2.4	2.5	2.3	2.5	2.9	3.1	2.8	3.3
8	3.1	2.6	2.7	2.3	2.4	2.5	2.2	2.5	2.9	3.3	2.8	3.3
9	3.0	2.6	2.7	2.3	2.4	2.5	2.2	2.6	3.0	3.3	2.8	3.4
10	2.9	2.6	2.7	2.3	2.4	2.5	2.2	2.6	2.9	3.3	2.8	3.2
11	2.9	2.6	2.7	2.3	2.5	2.4	2.2	2.6	2.9	3.3	2.8	3.1
12	2.8	2.6	2.7	2.3	2.5	2.4	2.2	2.6	2.9	3.4	2.8	3.2
13	2.8	2.6	2.8	2.3	2.5	2.4	2.2	2.6	2.9	3.4	2.9	3.1
14	2.8	2.6	2.8	2.3	2.5	2.4	2.3	2.6	3.0	3.2	3.0	3.1
15	2.8	2.6	2.7	2.3	2.5	2.4	2.3	2.7	3.0	3.2	2.9	3.0
16	2.7	2.6	2.6	2.3	2.5	2.4	2.3	2.7	2.9	3.2	2.9	3.1
17	2.7	2.6	2.7	2.3	2.5	2.4	2.3	2.7	3.0	4.5	2.9	3.1
18	2.7	2.6	2.7	2.2	2.5	2.4	2.3	2.7	3.0	3.4	2.8	3.1
19	2.7	2.6	2.7	2.3	2.5	2.4	2.3	2.7	3.1	3.3	3.6	3.2
20	2.9	2.6	2.6	2.3	2.5	2.3	2.3	2.7	3.0	3.3	2.9	3.1
21	2.7	2.6	2.5	2.3	2.5	2.3	2.3	2.7	3.0	3.8	2.8	3.2
22	2.6	2.6	2.5	2.3	2.6	2.3	2.3	2.7	3.0	2.7	2.8	3.1
23	2.6	2.6	2.5	2.3	2.6	2.3	2.3	2.7	3.0	2.7	4.1	3.1
24	2.6	2.6	2.5	2.3	2.6	2.3	2.4	2.7	3.1	2.7	3.8	3.1
25	2.6	2.7	2.6	2.3	2.6	2.3	2.4	2.7	3.1	2.7	3.2	3.1
26	2.6	2.7	2.5	2.3	2.6	2.3	2.6	2.7	3.2	2.7	3.2	3.1
27	2.6	2.7	2.6	2.3	2.6	2.5	2.6	2.8	3.2	2.7	3.1	2.8
28	2.6	2.7	2.5	2.3	2.6	2.3	2.6	2.8	3.2	2.7	3.0	2.8
29	2.6	2.7	2.5	2.3	2.6	2.3	2.6	2.9	3.1	3.5	2.8	2.8
30	2.6	2.7	2.5	2.4	---	2.3	2.6	2.9	3.1	3.0	3.2	2.8
31	2.6	---	2.4	2.4	---	2.3	---	2.9	---	2.8	3.1	---
TOTAL	328.7	78.7	81.6	71.9	72.3	74.6	69.9	82.5	89.9	97.9	92.6	93.3
MEAN	10.6	2.62	2.63	2.32	2.49	2.41	2.33	2.66	3.00	3.16	2.99	3.11
MAX	186	2.7	2.8	2.4	2.6	2.6	2.6	2.9	3.2	4.5	4.1	3.4
MIN	2.6	2.6	2.4	2.2	2.4	2.3	2.2	2.5	2.9	2.7	2.8	2.8
AC-FT	652	156	162	143	143	148	139	164	178	194	184	185

CAL YR 1983 TOTAL 1927.8 MEAN 5.28 MAX 186 MIN 2.4 AC-FT 3820
WTR YR 1984 TOTAL 1233.9 MEAN 3.37 MAX 186 MIN 2.2 AC-FT 2450

09443000 SAN FRANCISCO RIVER NEAR ALMA, NM

LOCATION.--Lat 33°22'05", long 108°54'35", in SW¼SE¼ sec.4, T.11 S., R.20 W., Catron County, Hydrologic Unit 15040004, on right bank 1.2 mi downstream from Alma, 4 mi northwest of Glenwood, 6 mi upstream from Whitewater Creek, and at mile 523.5.

DRAINAGE AREA.--1,546 mi^2.

PERIOD OF RECORD.--September 1904 to January 1914, fragmentary (see WSP 1313), January 1964 to current year. Prior to October 1911, published as "at Alma".

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,842 ft, from topographic map. Prior to Aug. 11, 1912, nonrecording gages at various sites, within 500 ft of each other, 0.8 mi upstream, at different datums. Aug. 11, 1912, to Feb. 2, 1914, nonrecording gage at approximately present site and datum. Jan. 10, 1964 to Nov.1, 1972, at datum 3.00 ft higher.

REMARKS.--Records good except those for October and August, which are poor. Diversions for irrigation of about 1,600 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years (water years 1965-84), 80.9 ft^3/s, 58,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,600 ft^3/s Oct. 2, 1983, gage height, 21.44 ft, present datum, from floodmarks in well, from rating curve extended above 9,000 ft^3/s on basis of slope-area measurements at gage heights 18.16 ft and 21.44 ft; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 60,000 ft^3/s were computed at Clifton, Az.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56,600 ft^3/s (time unknown) Oct. 2, gage height, 21.44 ft from floodmark inside gage well, from rating curve extended above 9,000 ft^3/s on basis of slope-area measurements at gage heights 18.16 ft and 21.44 ft; no flow July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18000	73	61	116	53	27	27	27	4.8	2.4	52	22
2	22000	65	78	163	53	29	28	26	4.6	2.0	55	16
3	6000	72	100	122	53	27	28	24	4.5	1.9	60	22
4	2200	85	89	105	51	29	28	17	4.4	1.9	72	15
5	1270	92	90	113	49	30	26	14	4.3	1.8	67	9.5
6	881	87	78	173	47	31	24	12	4.2	1.9	60	8.7
7	690	88	71	148	46	31	30	11	4.0	1.9	54	8.2
8	592	85	69	152	45	28	35	9.2	4.0	1.9	48	7.1
9	543	86	65	144	42	27	33	7.8	3.8	1.9	42	5.8
10	460	81	60	128	42	28	31	7.7	3.7	1.8	36	5.4
11	366	81	57	117	41	28	32	6.5	3.7	1.4	56	3.4
12	268	76	55	105	37	29	31	4.0	3.6	1.1	48	1.5
13	181	72	53	94	34	28	29	3.6	3.4	.85	40	2.3
14	146	74	54	91	33	27	27	3.8	3.4	.57	37	3.0
15	133	73	56	86	33	27	22	4.2	3.4	.35	91	3.6
16	130	72	55	83	33	27	20	5.0	3.4	.12	60	3.7
17	125	64	56	83	32	26	16	6.4	3.3	.00	54	4.6
18	126	67	63	78	30	26	14	7.9	3.3	54	88	29
19	126	76	64	68	31	25	11	8.7	3.1	100	82	45
20	133	69	71	65	31	24	11	8.1	3.1	80	98	19
21	143	72	73	60	30	24	10	7.2	2.8	70	57	14
22	133	90	81	61	30	23	12	6.3	2.8	75	21	12
23	122	74	83	59	30	24	13	6.0	2.5	95	82	15
24	118	65	81	56	32	23	11	5.9	2.5	90	132	16
25	111	71	87	56	34	23	15	5.4	2.3	70	188	16
26	103	78	95	56	33	22	17	5.4	2.2	55	312	19
27	96	71	101	54	30	23	23	5.3	2.3	48	147	29
28	95	66	111	53	28	29	31	5.2	2.3	43	192	30
29	91	63	108	54	27	28	35	5.0	2.3	35	118	24
30	89	58	104	53	---	27	32	4.9	2.3	70	53	19
31	85	---	109	51	---	26	---	4.9	---	60	34	---
TOTAL	55556	2246	2378	2847	1090	826	702	275.4	100.3	968.79	2536	428.8
MEAN	1792	74.9	76.7	91.8	37.6	26.6	23.4	8.88	3.34	31.3	81.8	14.3
MAX	22000	92	111	173	53	31	35	27	4.8	100	312	45
MIN	85	58	53	51	27	22	10	3.6	2.2	.00	21	1.5
AC-FT	110200	4450	4720	5650	2160	1640	1390	546	199	1920	5030	851

CAL YR 1983 TOTAL 115192.20 MEAN 316 MAX 22000 MIN 2.0 AC-FT 228500
WTR YR 1984 TOTAL 69954.29 MEAN 191 MAX 22000 MIN .00 AC-FT 138800

NOTE: No gage-height record July 20 to Aug. 20.

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼NW¼ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi upstream from hot springs, 5 mi south of Glenwood, 6 mi downstream from Whitewater Creek, and at mile 511.5.

DRAINAGE AREA.--1,653 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area. WDR NM-78-1: 1977. WDR NM-79-1: 1973, 1975-77 (P).

GAGE.--Water-stage recorder. Altitude of gage is 4,560 ft, from topographic map; prior to Feb. 15, 1934, at site 4.5 mi upstream at datum 58.82 ft higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 2,000 acres above station. Gage height satellite telemeter at station.

AVERAGE DISCHARGE.--57 years, 79.3 ft^3/s, 57,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft^3/s, Oct. 2, 1983, gage height, 18.15 ft recorded, 20.80 ft from outside floodmarks, from rating curve extended above 4,200 ft^3/s on basis of slope-area measurements at gage heights 10.74 ft, 15.6 ft and 20.8 ft; minimum, 1.5 ft^3/s Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft^3/s or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft^3/s was measured (by float-area method) at station at Alma (about 12 mi upstream, drainage area, 1,560 mi^2); a similar measurement of 21,000 ft^3/s was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37,100 ft^3/s at 1115 hours Oct. 2, gage height, 18.15 ft recorded, 20.80 ft from outside floodmarks, from rating curve extended above 4,200 ft^3/s on basis of slope-area measurements at gage heights 10.74 ft, 15.6 ft and 20.8 ft, no other peak above base of 800 ft^3/s; minimum, 19 ft^3/s July 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16100	91	54	89	50	58	47	44	45	32	53	67
2	27500	89	63	120	51	57	50	43	45	35	56	56
3	9180	88	86	168	52	56	46	49	45	41	68	53
4	2640	88	96	127	51	53	47	46	46	33	77	50
5	1300	93	103	114	51	53	45	44	42	29	82	44
6	840	91	98	163	51	55	44	45	38	31	75	42
7	597	88	84	176	51	53	47	45	36	34	72	41
8	456	85	77	188	49	49	44	44	34	29	62	39
9	381	79	80	184	49	49	56	44	36	26	47	39
10	324	76	80	166	49	50	57	44	33	21	40	35
11	257	76	74	150	49	49	56	45	33	22	49	33
12	230	74	73	126	49	51	57	45	34	25	57	32
13	217	71	72	111	48	50	56	44	36	26	47	30
14	237	69	75	101	48	48	54	48	32	28	49	29
15	224	66	67	102	49	48	53	49	26	28	59	31
16	206	66	65	101	48	47	45	52	27	30	55	31
17	193	66	64	97	50	48	42	50	32	56	80	27
18	181	68	64	88	50	47	41	54	30	84	88	28
19	159	69	69	86	48	48	43	52	29	99	85	53
20	156	67	70	80	52	47	40	53	31	78	119	37
21	168	75	69	78	48	44	40	52	30	69	83	34
22	200	88	69	74	54	44	43	50	28	101	52	34
23	189	83	69	77	54	43	42	46	28	99	67	33
24	157	71	66	80	53	43	44	50	31	90	98	36
25	112	67	66	34	57	43	41	49	42	68	182	34
26	107	70	68	62	56	42	42	48	38	53	357	38
27	104	66	76	58	55	46	40	45	34	47	259	43
28	104	63	80	64	59	49	42	46	55	42	240	42
29	100	56	92	63	58	49	41	49	43	36	199	40
30	98	54	90	49	---	48	43	48	34	79	123	35
31	96	---	89	51	---	44	---	45	---	63	86	---
TOTAL	62813	2253	2348	3247	1489	1511	1388	1468	1073	1534	3066	1166
MEAN	2026	75.1	75.7	105	51.3	48.7	46.3	47.4	35.8	49.5	98.9	38.9
MAX	27500	93	103	188	59	58	57	54	55	101	357	67
MIN	96	54	54	49	48	42	40	43	26	21	40	27
AC-FT	124600	4470	4660	6440	2950	3000	2750	2910	2130	3040	6080	2310

CAL YR 1983 TOTAL 136822 MEAN 375 MAX 27500 MIN 24 AC-FT 271400
WTR YR 1984 TOTAL 83356 MEAN 228 MAX 27500 MIN 21 AC-FT 165300

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
NOV 01...	1530	94	390	381	8.2	8.2	26.0	20.0	140	0
JAN 12...	1330	127	280	--	8.0	--	11.0	9.5	--	--
APR 10...	1030	57	330	365	8.1	8.2	17.0	14.0	140	0
JUN 05...	1100	39	280	317	8.4	8.2	23.0	18.5	120	0
JUL 10...	0930	18	--	--	8.0	8.2	32.0	25.0	160	0

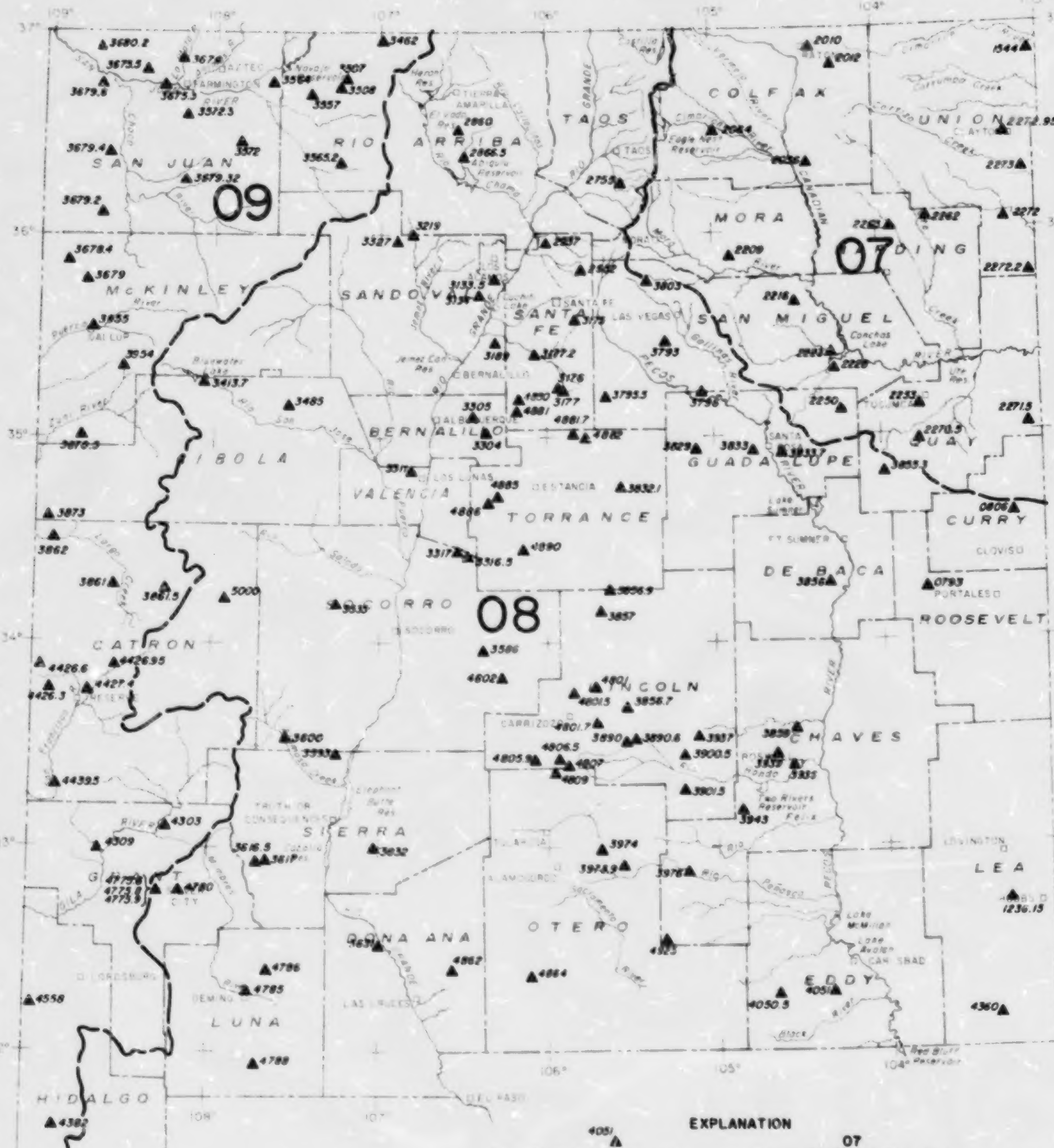
DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
NOV 01...	40	9.6	30	1	3.1	15	19	.40	36	250
JAN 12...	--	--	--	--	--	--	--	--	--	--
APR 10...	39	9.7	21	.8	2.2	16	6.4	.40	32	230
JUN 05...	35	8.9	19	.8	1.9	14	5.5	.40	34	200
JUL 10...	47	10	37	1	3.2	17	32	.60	39	290

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV 01...	1530	30	12
APR 10...	1030	20	10
JUN 05...	1100	20	11
JUL 10...	0930	40	12

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV 01...	1530	94	20.0	85	22	71
JUN 05...	1100	39	18.5	54	5.7	60
JUL 10...	0930	18	25.0	46	2.2	87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CIBOLA
BERNALILLO
VALENCIA
TORRANCE
GUADALUPE
QUAY
CURRY
DE BACA
ROOSEVELT
CATRON
SOCORRO
LINCOLN
CHAVES
SIERRA
GRANT
OTERO
DONA ANA
LUNA
EDDY
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09
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FARMINGTON
AZTEC
GALLUP
SANTA FE
LAS VEGAS
ALBUQUERQUE
BERNALILLO
LOS LUNAS
ESTANCIA
SOCORRO
CARRIZOZO
ROSWELL
TRUTH OR CONSEQUENCES
SILVER CITY
DEMING
LORDSBURG
LAS CRUCES
ALAMOGORDO
TULAROSA
CARLSBAD
LOVINGTON
PORTALES
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2010
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2064
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1544
2272.95
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2262
2272.2
2809
3219
3327
2657
2652
3803
3153.5
3134
3173
3793
2216
3855
3854
3413.7
3485
3189
3127.2
3126
3177
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4880
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3793.5
3798
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3853.7
2250
2228
2233
2270.5
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0806
3878.3
3873
3862
3861
3861.5
5000
3317
3316.5
4885
4886
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3856.9
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0793
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3586
4602
4426.6
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0 10 20 30 40 50 MILES
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U.S. Geological Survey base
EXPLANATION
4051
Crest-stage station and abbreviated number (08405100 is national station number)
07
Lower Mississippi River basin
08
Western Gulf of Mexico basins
09
Colorado River basin
River basin boundary

Figure 6.--Map of New Mexico showing location of partial-record stations.

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As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in floodflow analyses. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in the second table.

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each year is given. Information on some lower floods may have been obtained, and discharge measurements made for purposes of establishing the stage-discharge relation, but these are not published herein. The year given in the period of record column represents the first year of a period extending through the current year unless otherwise noted. For some stations, publication of discharge is delayed pending definition of stage-discharge relationship. Published maximums are for water years.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		ARKANSAS RIVER BASIN					
07154400	Carrizozo Creek near Kenton, OK.	Lat 36°52'55", long 103°01'05", Union County, under bridge on New Mexico State Highway 18, 4 miles southwest of Kenton, OK.	111	1953-	- -84	---	(+)
07201000	Raton Creek at Raton.	Lat 36°55'38", long 104°26'22", Colfax County, 60 ft above bridge on State Highway 72 at Raton.	14.4	1953-	04- -84	1.72	404
07201200	Chicorica Creek tributary near Raton.	Lat 36°49'41", long 104°19' 58", Colfax County, upstream from culvert on U.S. Highway 64-87, 7.7 miles southeast of Raton.	5.18	1971-	- -84	---	(k)
07203600	Rio del Plano tributary near Taylor Springs.	Lat 36°26'59", long 104°22'34", Colfax County, 1.7 miles south of Sauble Ranch, and 11.0 miles northeast of Taylor Springs.	6.71	1971-	08-18-84	9.77	(+)
07206400	Clear Creek near Ute Park.	Lat 36°31'35", long 105°10'30", Colfax County, Maxwell Grant, 0.25 mile upstream from mouth, and 4 miles southwest of Ute Park.	7.44	1962-67* 1968-	07-07-84	2.14	42
07220900	Dog Creek near Shoemaker.	Lat 36°49'32", long 104°53'28", Mora County, 0.5 mile above Valmora-Shoemaker road, and 1.8 miles northwest of Shoemaker.	18.4	1954-	06-15-84	7.11	321
07221600	Lagartija Creek tributary near Sanchez.	Lat 35°39'21", long 104°24'57" San Miguel County, at bridge on State Highway 65, 0.9 mile northeast of Sanchez.	h1.19	1961-	- -84	j5.90	(+)
07222300	Trementina Creek at Trementina.	Lat 35°29'28", long 104°24'59", San Miguel County, at bridge on State Highway 65, at Trementina.	h63.9	1959-	- -84	---	(m)
07222800	Garita Creek tributary near Variadero.	Lat 35°20'10", long 104°21'50", San Miguel County, 1.2 miles upstream from mouth, and 6.3 miles southeast of Variadero.	h23.0	1971-	05-18-84	5.36	171
07225000	Pajarito Creek at Newkirk.	Lat 35°04'20", long 104°14'50" Guadalupe County, downstream side of bridge on U.S. Highway 66, 1 mile east of Newkirk.	55.0	1954-	08-01-84	3.51	802

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Gage height (ft)	Discharge (ft^3/s)
		ARKANSAS RIVER BASIN - Continued					
07225300	Bluewater Creek near Tucumcari.	Lat 35°08'31", long 103°47'32", Quay County, in Tucumcari Metropolitan Park, 1,600 feet north of the park's southern boundary, and 4.8 miles southwest of Tucumcari.	15.2	1971-	08-23-84	7.21	451
07226200	Bueyeros Creek at Bueyeros.	Lat 35°58'10", long 103°41'05", in E½ sec.7, T.20 N., R.31 E., Harding County, on right upstream wingwall of culvert on State Road 102 at Bueyeros.	h33.4	1957-	- -84	---	(k)
07226300	Carrizo Creek near Roy.	Lat 36°02'58", long 103°57'48", Harding County, 800 ft below State Highway 120, and 15 miles northeast of Roy.	a68	1954-	- -84	---	(k)
07227050	Plaza Larga Creek tributary near Ragland.	Lat 34°48'29", long 103°45'35", Quay County, at culvert on State Highway 18, 1.2 miles northwest of Ragland.	.36	1952-	06-20-84	6.50	164
07227150	Arroyo del Puerto near Endee.	Lat 35°03'32", long 103°06'04", Quay County, at bridge on State Highway 93, 5.4 miles south of Endee.	a25	1961-	08-23-84	2.89	78
07227200	Tramperos Creek near Stead.	Lat 36°04'15", long 103°12'10", in NW¼NW¼ sec.10, T.21 N., R.35 E., Union County, at bridge on State Highway 18, 2.1 miles south of Stead and 26 miles south Clayton.	a556	1966-73* 1974-	- -84	---	(k)
07227220	Pullingim Draw near Nara Visa.	Lat 35°45'50", long 103°07'30", Union County upstream from culvert on State Highway 18, 11.3 miles north of Nara Visa.	15.1	1971-	- -84	---	(k)
07227295	Sand Draw tributary near Clayton.	Lat 36°23'20", long 103°19'05", Union County, above culvert on State Highway 56, 8 miles southwest of Clayton.	1.25	1952-	- -84	---	(k)
07227300	Sand Draw near Clayton.	Lat 36°20'30", long 103°11'30", Union County, on downstream side of bridge on State Highway 18, 7.5 miles south of Clayton.	a42	1953-	- -84	---	(k)
		BRAZOS RIVER BASIN					
08079300	Blackwater Draw tributary near Floyd.	Lat 34°14'52", long 103°44'51", Roosevelt County, 0.5 mile below section road and 10 miles west of Floyd.	a10	1963-	- -84	---	(k)
08080600	Running Water Draw near Clovis.	Lat 34°31'55", long 103°12'05", Curry County, 0.25 mile upstream from Highway 18, and 8 miles north of Clovis.	109	1953-56 1957-64* 1965-	- -84	---	(k)
08123615	Monument Draw near Monument.	Lat 32°41'48", long 103°16'10", SW¼SE¼ sec.32, T.18 S., R.37 E., Lea County upstream from culvert on U.S. Highway 62-180, 8 miles west of Hobbs, and 5 miles north of Monument.	17.2	1975-	08-09-84	---	(k)

Annual maximum discharge at crest-stage partial-record stations

						Annual Maximum	
Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (ft)	Discharge (ft^3/s)
		RIO GRANDE BASIN					
08275500	Rio Grande del Rancho near Talpa.	Lat 36°17'52", long 105°34'55", Taos County, in Rancho del Rio Grande Grant, 104 miles downstream from Rito de la Olla, 3.2 miles south of Talpa, and 4.3 miles upstream from Rio Chiquito.	83	1952-82* 1983-	05-18-84	j3.53	232
08286000	Rio Nutrias near Cebolla.	Lat 36°34'45", long 106°30'43", Rio Arriba County, on upstream from culvert on U.S. Highway 84, 4.8 miles upstream from Canada del Policarpo, and 3.2 miles northwest of Cebolla.	74.3	1980-	- -84	2.36	174
08286650	Canjilon Creek above Abiquiu Reservoir.	Lat 36°18'55", long 106°29'05", Rio Arriba County, in Piedra Lumbre Grant, 300 ft upstream from bridge on U.S. Highway 84, 0.2 mile northwest of entrance to Ghost Ranch and about 12 miles northwest of Abiquiu.	144	1965-	- -84	4.14	416
08293700	Arroyo Seco tributary near Pojoaque.	Lat 35°56'33", long 106°01'12", Santa Fe County, upstream from culvert on U.S. Highway 64-84-285, 3.5 miles north of Pojoaque.	.72	1971-	- -84	---	(k)
08295200	Rio en Medio near Santa Fe.	Lat 35°47'30", long 105°47'38", Santa Fe County, in Santa Fe National Forest, on right bank 300 feet east of Santa Fe Ski Basin parking area, and 10.8 miles northeast of Santa Fe.	0.63	1963-73* 1973-	- -84	---	(+)
08313350	Rito de los Frijoles in Bandelier National Monument.	Lat 35°46'35", long 106°16'06" Sandoval County, in Bandelier National Monument, downstream from Monument headquarters, 6.5 miles south of Los Alamos, and 18.5 miles northwest of Santa Fe.	18.1	1963-69* 1977-82* 1983-	08-20-84	2.26	9.0
08313400	Bland Canyon near Cochiti Pueblo.	Lat 35°42'11", long 106°24'56", Sandoval County, 200 ft south of Forest Service Road, 0.3 mile inside Santa Fe National Forest, and 7.5 miles north of Cochiti Pueblo.	7.57	1962-	08-08-84	1.97	30
08317500	Galisteo Creek at Canoncito.	Lat 35°33'02", long 105°49'20", Santa Fe County, above railroad bridge, 0.2 mile above Apache Canyon at Canoncito.	11.3	1955-56 1959-	08-23-84	2.37	472
08317600	San Cristobal Arroyo near Galisteo.	Lat 35°22'55", long 105°51'05", Santa Fe County, at bridge on U.S. Highway 285, 5.5 miles east of Galisteo.	116	1955-	08-23-84	5.63	1,060
08317700	Tarhole Canyon near Galisteo.	Lat 35°21'55", long 105°50'40", Santa Fe County, at culvert on U.S. Highway 285, 6 miles southeast of Galisteo.	2.15	1952-	- -84	(e)	(+)
08317720	Canada de la Cueva near Galisteo.	Lat 35°26'13", long 106°00'45", Santa Fe County, 6.4 miles east of Cerrillos and 4.8 miles northwest of Galisteo.	h1.81	1970-	- -84	---	(k)
08318900	San Pedro Creek near Golden.	Lat 35°13'45", long 106°18'00", Sandoval County, 1 mile below bridge on State Highway 10 and 5.5 miles southwest of Golden.	45.2	1953-	03-27-84	1.17	810
08321900	Rio de las Vacas near Senorita.	Lat 35°59'35", long 106°47'45", Sandoval County, at bridge on side road, 0.1 mile south of State Highway 126 and 6.5 miles east of Senorita.	26.8	1957-	06-20-84	4.75	495

Annual maximum discharge at crest-stage partial-record stations

RIO GRANDE BASIN - Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record		Annual Maximum	
					Date	Gage height (ft)	Discharge (ft^3/s)
08330400	Juan Toro Canyon near Miera.	Lat 35°00'57", long 106°20'14", Bernalillo County, 150 ft east of State Highway 10, 1 mile southeast of Cedro, and 4.5 miles northwest of Miera.	1.57	1959-	- -84	---	(k)
08330500	Tijeras Arroyo at Albuquerque.	Lat 35°03'40", long 106°28'40", Bernalillo County, 300 ft south of U.S. Highway 66 and 0.4 mile southeast of city limits of Albuquerque.	75.3	1943-48* 1958-	- -84	---	(k)
08331100	Belen Highline Canal tributary near Los Lunas.	Lat 34°49'20", long 106°49'10", Valencia County, above culvert on Highway 6, 5.0 miles west of Los Lunas.	.16	1952-53 1955-	09-26-84	4.55	(+)
08331650	Canada Montoso near Scholle.	Lat 34°23'11", long 106°28'37", Socorro County, 130 ft upstream from dip on abandoned highway, 500 ft upstream from bridge on U.S. Highway 60, and 3.6 miles southwest of Scholle.	a35	1961-	10-20-83	4.16	1,680
08331700	Abo Arroyo tributary near Scholle.	Lat 34°24'10", long 106°30'35", Socorro County, at culvert on U.S. Highway 60, 2.5 miles southeast of junction of U.S. Highway 60, and State Highway 6, southwest of Scholle.	.23	1954-	10-20-83	14.78	90
08332700	San Pablo Creek near Cuba.	Lat 35°56'55", long 106°56'44", Sandoval County, upstream from bridge on old section of State Highway 44 and 5.6 miles south of Cuba.	12.8	1970-82g	07-20-71	9.07	2,360
					09-11-72	4.32	234
					08-02-73	4.64	312
					07-07-74	5.01	404
					09-11-75	7.00	1,310
					07-31-76	4.97	393
					07-22-77	4.65	315
					11-07-77	3.21	60
					04-23-79	3.09	40
					05-18-80	2.82	23
					08-07-81	3.89	130
					g07-30-82	5.40	462
08341370	Pine Canyon near Thoreau.	Lat 35°18'34", long 108°10'14", McKinley County, about 1 mile southwest of the north end of Bluewater Lake and about 7 miles southeast of Thoreau.	6.09	1969-	- -84	---	(m)
08348500	Encinal Creek near Casa Blanca.	Lat 35°08'35", long 107°27'55", Valencia County, 1.8 miles north of village of Encinal and 6.8 miles north of Casa Blanca.	6.19	1937-39* 1959-	08-12-84	1.74	19
08353500	La Jencia Creek near Magdalena.	Lat 34°09'45", long 107°12'35", Socorro County, 3.5 miles northeast of Magdalena.	195	1957-	08-05-84	2.54	1,100
08358600	Chupadera Wash tributary at Bingham.	Lat 33°51'39", long 106°22'06", Socorro County, 75 ft upstream from culvert on U.S. Highway 380, and 0.1 mile west of Bingham.	1.29	1961-	10-02-83	1.97	158
08359300	San Jose Arroyo near Monticello.	Lat 33°28'05", long 107°14'30", Sierra County, at head of box canyon just below major tributary, 800 ft below culvert on U.S. Highway 85, and 13 miles northeast of Monticello.	26.9	1959-	- -84	---	(k)
08360000	Alamosa Creek near Monticello.	Lat 33°34'09", long 107°35'33", Socorro County, on left bank at Alamosa damsite and below Old Fort Ojo Caliente, just downstream from Wildhorse Creek, 15 miles northwest of Monticello.	403	1931-42* 1956-58 1958-69* 1973-	08-26-84	7.22	3,060

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft^3/s)
		RIO GRANDE BASIN - Continued					
08361650	Percha Creek near Kingston.	Lat 32°55'05", long 107°38'55", Sierra County, at bridge on State Highway 180, 3.3 miles east of Kingston.	21.5	1953-	11-05-83	3.29	345
08361700	Percha Creek near Hillsboro.	Lat 32°54'55", long 107°36'05", Sierra County, 150 ft south of State Highway 180, and 2 miles west of Hillsboro.	35.4	1957-78 1980-	11-05-83	3.11	505
08363100	Rio Grande tributary near Radium Springs.	Lat 32°30'05", long 106°57'05", Dona Ana County, above culvert on U.S. Highway 85, 120 ft above mouth, and 1.4 miles west of Radium Springs.	.40	1955-	08-04-84	4.93	105
08363200	Aleman Draw at Aleman.	Lat 33°00'00", long 107°00'20", Sierra County, on Santa Fe Railroad bridge, 140 ft above dip on Engle-Rincon road, and 0.26 mile west of Aleman.	25.5	1959-	08-03-84	6.01	1,390
08379300	Tecolote Creek at Tecolote.	Lat 35°27'20", long 105°16'55", San Miguel County, on bridge on U.S. Highway 85 at Tecolote.	122	1954-	- -84	---	(k)
08379550	Canon Blanco near Leyba.	Lat 35°13'14", long 105°40'12", San Miguel County, 0.2 mile south of White Lakes-Leyba road and 5.0 miles west of Leyba.	11.2	1971-	08-14-84	(e)	(+)
08379600	Pecos River tributary near Dilia.	Lat 35°12'50", long 105°04'50", Guadalupe County, above culvert on U.S. Highway 84, and 1.7 miles northwest of Dilia.	.16	1952-	- -84	---	(k)
08380300	Sandoval Canyon at Gallinas.	Lat 35°41'19", long 105°21'17", San Miguel County, about 500 ft upstream from culvert on State Highway 65, at north edge of Gallinas.	7.6	1957 1961-	06-02-84	2.03	100
08382900	Pecos River tributary near Pintada.	Lat 34°58'06", long 105°05'38", Guadalupe County, in Anton Chico Grant, 1,500 ft south of U.S. Highway 66, and 6.8 miles north of Pintada.	.16	1961-	- -84	---	(k)
08383210	Pintada Arroyo tributary near Encino.	Lat 34°48'40", long 105°34'00", Torrance County, above culvert on U.S. Highway 285, 0.1 mile south of ranch road, and 12.5 miles northwest of Encino.	h.55	1959-	- -84	---	(k)
08383300	Pintada Arroyo near Santa Rosa.	Lat 34°53'20", long 104°43'50", Guadalupe County, at bridge on U.S. Highway 54, and 4.5 miles southwest of Santa Rosa.	896	1959-	08-10-84	8.19	3,500
08383370	Pecos River tributary near Puerto de Luna.	Lat 34°52'35", long 104°38'16", Guadalupe County, 25 ft upstream from culvert on State Highway 91, and 3.1 miles north of Puerto de Luna.	.37	1961-	08-10-84	9.59	275
08385530	Alamosa Creek tributary near Jordan.	Lat 34°47'44", long 103°58'07", Quay County, 500 ft upstream from dip on State Highway 156, and 6.9 miles west of Jordon.	9.71	1962-	05-23-84	2.92	96
08385600	Yeso Creek near Fort Sumner.	Lat 34°16'32", long 104°17'28", De Baca County, at abandoned bridge 1 mile downstream from State Highway 20, and 14.5 miles south of Fort Sumner.	242	1937-	08-10-84	1.58	4,400

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		RIO GRANDE BASIN - Continue					
08385670	Aragon Creek tributary near Encinoso.	Lat 33°43'35", long 105°31'43", Lincoln County, 0.3 mile upstream from wooden bridge on dirt road, 1.2 miles north of State Highway 48, and 4.3 miles west of Encinoso.	6.07	1961-	08-08-84	3.99	580
08385690	Bonita Canyon tributary near Corona.	Lat 34°14'04", long 105°37'12", Lincoln County, above culvert on U.S. Highway 54, and 1.8 miles southwest of Corona.	a.6	1959-	- -84	---	(k)
08385700	Cloud Canyon tributary near Gallinas.	Lat 34°07'53", long 105°40'57", Lincoln County, above culvert on U.S. Highway 54, and 2.0 miles southwest of Gallinas.	a10	1957-	09-17-84	3.05	51
08385900	Salt Creek tributary near Roswell.	Lat 33°32'22", long 104°31'08", Chavez County, at culvert on U.S. Highway 285, 4.7 miles north of junction of U.S. Highway 70 and 285, and 10 miles north of Roswell.	.04	1952-	08-08-84	1.26	17
08389000	Rio Bonito near Fort Stanton.	Lat 33°31'05", long 105°29'10", Lincoln County, at bridge on U.S. Highway 380, 2.5 miles northeast of Fort Stanton.	a85	1955-	08-08-84	3.94	(+)
08389060	Rio Bonito tributary near Fort Stanton.	Lat 33°31'15", long 105°28'05", Lincoln County, at culvert on U.S. Highway 380, 150 ft above mouth, and 3.5 miles northeast of Fort Stanton.	.72	1955-	- -84	---	(k)
08390050	Rio Hondo tributary at Tinnie.	Lat 33°22'36", long 105°13'01", Lincoln County, upstream from culvert on U.S. Highway 70-380, 0.5 mile east of junction of U.S. Highway 70-380 and State Highway 368, and at Tinnie.	.23	1971-	07-29-73	3.81	h2
					08-27-74	5.05	h55
					07-06-75	4.22	h11
					07-24-76	4.96	h49
					08-29-77	4.73	h35
					06-28-78	5.14	h62
					08-15-79	4.38	h18
					09-09-80	7.40	h236
					08-18-81	6.32	h153
					09-03-82	7.32	h230
					- -83	h4.37	h18
					08-10-84	4.97	50
08390150	Gallo Canyon near Picacho.	Lat 33°17'23", long 105°10'49", Lincoln County, 500 ft east of road, 5 miles south of Arabela.	1.32	1962-	08-10-84	5.47	340
08393600	North Spring River at Roswell.	Lat 33°23'47", long 105°32'53", Chavez County, Roswell Municipal Golf Course, 2,400 ft upstream from Montana Ave. in Roswell.	19.5	1958-	05-03-81	3.50	h95
					10-19-83	2.74	12
08393700	Pancho Canyon near Arabela.	Lat 33°30'36", long 105°11'38", Lincoln County, 200 ft downstream from dip on State Highway 368, and 5.6 miles south of Arabela.	16.7	1962-	08-08-84	d1.78	314
08393900	Eight Mile Draw near Roswell.	Lat 33°24'05", long 104°37'54", Chavez County, 6.5 miles west of Roswell.	397	1941 1952-	- -84	---	(k)
08394300	Twin Butte Canyon tributary near Roswell.	Lat 33°10'34", long 104°51'30", Chavez County, about 0.1 mile upstream from mouth and about 22 miles southwest of Roswell.	5.01	1968-	08-08-84	3.84	(+)

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Date	Annual Maximum	
						Gage height (ft)	Discharge (ft^3/s)
		RIO GRANDE BASIN - Continued					
08397390	Curtis Canyon near Mayhill.	Lat 32°51'52", long 105°31'05", Otero County, 0.26 mile above SCS dam, 0.4 mile west of State Highway 130, and 2.5 miles southwest of Mayhill.	10.3	1959-	08-10-84	0.60	(+)
08397400	Hyatt Canyon near Cloudcroft.	Lat 32°56'06", long 105°37'37", Otero County, 0.5 mile south of State Highway 83, and 7 miles east of Cloudcroft.	3.08	1953-	- -84	1.86	(+)
08397600	Rio Penasco near Dunken.	Lat 33°52'55", long 105°10'40", Chavez County, on bridge on State Highway 24, 5 miles north of Dunken.	583	1952-56 1956-62* 1963-	08-10-84	15.02	6,000
08405050	Last Chance Canyon tributary near Carlsbad Caverns.	Lat 32°17'30", long 104°36'20", Eddy County, above culvert on State Highway 137, 0.1 mile north of road to Sitting Bull Falls, and 12.5 miles northwest of Carlsbad Caverns.	0.2	1959-	08-10-84	5.45	398
08405100	Mosley Canyon near White City.	Lat 32°15'27", long 104°22'43", Eddy County, 600 ft below dip on Dark Canyon Road, and 5.5 miles north of White City.	14.6	1959-	08-11-84	5.78	2,075
08436000	Antelope Draw near Jal.	Lat 32°09'18", long 103°21'51", Lea County, 0.4 mile south of State Highway 128, and 10.7 miles west of Jal.	a20	1963-	08-09-84	d-0.91	(+)
		MIMBRES BASIN					
08477560	Little Walnut Creek near Silver City.	Lat 32°48'20", long 108°17'35", Grant County, 85 ft above dip on Bear Mountain Road, and 2 miles north of Silver City.	5.10	1959-	10-02-83	1.75	350
08477580	Silva Creek at Silver City.	Lat 32°46'41", long 108°16'41", Grant County, 190 ft above Twelfth Street bridge at Silver City.	10.0	1958-	10-02-83	2.82	550
08477590	Pinos Altos Creek at Silver City.	Lat 32°46'52", long 108°16'04", Grant County, 2 blocks below U.S. Highway 260 at Silver City.	4.63	1958-	08-21-58	3.20	755
					08-15-59	2.22	500
					08-11-60	4.70	1,160
					07-30-61	3.90	935
					07-20-62	3.49	815
					08-16-63	9.00	3,140
					07-15-64	3.43	2,330
					08-02-65	2.51	1,020
					06-26-66	3.37	2,230
					- -67	(b)	<100
					08-26-68	1.45	229
					- -69	(b)	<100
					- -70	(b)	<100
					07-27-71	3.79	3,030
					09-03-72	4.09	3,700
					10-20-72	1.31	177
					- -74	(b)	<100
					- -75	(b)	<100
					- -76	(b)	<100
					08-31-77	1.73	372
					- -78	(b)	<100
					- -79	(b)	<100
					- -80	(b)	<100
					- -81	(b)	<100
					- -82	(b)	<100
					- -83	(b)	<100
					08-26-84	3.68	2,800

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		MIMBRES BASIN - Continued					
08478000	Cameron Creek at Central.	Lat 32°47'38", long 108°08'58", Grant County, 0.5 mile above culvert on U.S. Highway 260, at north edge of Central.	18.8	1954-	10-02-83	2.76	465
08478500	Mimbres River at Deming.	Lat 32°17'00", long 107°45'35", Luna County, at bridge on U.S. Highway 260, at north end of Deming.	1,370	1983-	10-02-83	8.19	1,240
08478600	Mimbres basin tributary near Florida.	Lat 32°21'30", long 107°37'30", Luna County, above culvert on State Highway 26, and 5 miles southwest of Florida.	.55	1959-	08-11-84	2.32	150
08478800	Seventysix Draw tributary near Waterloo.	Lat 31°56'34", long 107°44'38", Luna County, upstream from culvert on State Road 11, 3.9 miles southeast of Waterloo, and 7.9 miles north of Columbus.	.2	1967-	08-11-84	3.21	57
		PLAYAS BASIN					
08479300	Deer Creek tributary near Antelope Wells.	Lat 31°23'00", long 108°42'15", Hidalgo County, 0.1 mile below dip on State Highway 79, 2.5 miles east of San Luis Pass, and 12 miles west of Antelope Wells.	4.3	19[illegible]9-	08-10-84	2.88	600
		TULAROSA BASIN					
08480100	White Oaks Canyon at White Oaks.	Lat 33°46'06", long 105°43'26", Lincoln County, 40 ft upstream from culvert on State Highway 349, 1 mile northeast of White Oaks.	1.14	g1961-84	08-10-84	2.11	(+)
08480150	White Oaks Canyon near Carrizozo.	Lat 33°43'51", long 105°50'11", Lincoln County, 100 ft upstream from culvert on U.S. Highway 54, 6 miles north of Carrizozo.	31	1959- 1961-	08-08-84	2.32	885
08480170	Nogal Creek tributary near Nogal.	Lat 33°34'54", long 105°41'10", Lincoln County, upstream from culvert on U.S. Highway 380, about 2.0 road miles west of Indian Divide, 7 miles northwest of Capitan and 2 miles north of Nogal.	1.94	1968-	09-01-72	4.85	h260
					09-01-75	3.27	h41
					08-22-76	4.23	h170
					08-10-77	8.45	h655
					- -78	2.65	h16
					08-15-79	2.46	h11
					06-10-80	2.36	h9
					- -81	3.26	h40
					- -82	2.07	h4
					- -83	(e)	(m)
					- -84	2.94	22
08480200	Taylor Canyon tributary near Bingham.	Lat 33°48'11", long 106°12'00", Socorro County, 200 ft north of U.S. Highway 380, and 12 miles southeast of Bingham.	2.66	1961-	09-26-84	1.87	(+)
08480590	Tularosa Valley tributary near Oscura.	Lat 33°24'41", long 106°04'09", Lincoln County, 50 ft below culvert on U.S. Highway 54, and 5.2 miles south of Oscura.	3.22	1958-	08-10-84	1.71	(+)

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi²)	Period of record	Annual Maximum Date	 Gage height (ft)	 Discharge (ft³/s)
		TULAROSA BASIN - Continued					
08480650	Minnie Hall Draw near Three Rivers.	Lat 33°23'40", long 105°58'11", Lincoln County, 8 miles northeast of Three Rivers.	9.70	1956-	08-10-84	6.64	(+)
08480700	Indian Creek near Three Rivers.	Lat 33°22'10", long 105°53'25", Otero County, 150 ft above diversion dam, and 12 miles east of Three Rivers.	6.8	1956-58* 1959-	08-10-34	3.87	183
08480900	Indian Creek at mouth near Three Rivers.	Lat 33°22'45", long 105°[illegible]'25", Otero County, 75 ft above diversion dam, 0.35 mile above mouth, and 5.5 miles east of three Rivers.	10.9	1956-58* 1959-	08-10-84	3.14	84
08486200	Black Prince Canyon tributary near Organ.	Lat 32°26'11", long 106°32'03", Dona Ana County, above culvert on U.S. Highway 70, 2.3 miles east of San Augustin Pass, and 4.0 miles east of Organ.	.73	g1959-84	- -84	(e)	(+)
08486400	Tularosa Valley tributary near Orogrande.	Lat 32°24'55", long 106°04'20", Otero County, at bridge on U.S. Highway 54, and 2.7 miles northeast of Orogrande.	2.53	1959-	08-10-84	4.53	(+)
		ESTANCIA BASIN					
08488000	Estancia Valley tributary at Cedar Grove.	Lat 35°10'05", long 106°10'08", Santa Fe County, 50 ft upstream from culvert on State Highway 344, 0.1 mile south of Cedar Grove.	1.21	1955 1961-	- -84	---	(k)
08488100	Juan Tomas Canyon near Edgewood.	Lat 35°04'35", long 106°13'46", Santa Fe County, 140 ft upstream from culvert on U.S. Highway 66, 2.5 miles northwest of Edgewood.	a20	1962-	- -84	---	(k)
08488170	Chavez Draw tributary near Clines Corners.	Lat 35°01'06", long 105°49'06", Torrance County, one mile north of Interstate 40, 13 miles east of Moriarty and 9 miles west of Clines Corners.	2.73	1968-	09-15-84	4.64	(+)
08488200	Osita Draw near Clines Corners.	Lat 35°00'18", long 105°48'00", Torrance County, 100 ft upstream from culvert on U.S. Highway 66, 7.5 miles west of Clines Corners.	a10	1961-	08-15-84	1.88	158
08488500	Canon de Torreon at Torreon.	Lat 34°43'20", long 106°17'50", Torrance County, at culvert on State Highway 10, in Torreon.	18.2	1954-	10-02-83	5.45	4,230
08488600	Arroyo del Cuervo near Torreon.	Lat 34°41'35", long 106°18'27", Torrance County, in Town of Torreon Grant, about 0.3 mile above culvert on State Road 10 and 2 miles south of Torreon.	11.8	1969-	10-02-83	5.34	1,320
08489000	Big Draw near Mountainair.	Lat 34°18'45", long 106°11'35", Torrance County, 0.25 mile above culvert on State Highway 14, and 8.4 miles southeast of Mountainair.	h4.06	1953-	- -84	---	(k)

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Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Date	Annual Maximum	
						Gage height (ft)	Discharge (ft^3/s)
		SALT BASIN					
08492500	Fleming Draw near Pinon.	Lat 32°31'01", long 105°20'42", Otero County, 0.2 mile above dip in ranch road, and 7.5 miles south of Pinon.	16.6	1959-	08-10-84	8.54	5,500
		SAN AUGUSTIN PLAINS BASIN					
08500000	Swingle Canyon near Datil.	Lat 34°11'17", long 107°53'55", Catron County, about 0.3 mile upstream from U.S. Highway 60, and 4.3 miles northwest of Datil.	6.35	1970-72 1976-	08-03-84	4.61	(+)
		SAN JUAN RIVER BASIN					
09346200	Rio Amargo at Dulce.	Lat 36°56'00", long 107°00'00", Rio Arriba County, under bridge on State Highway 17, at Dulce.	168	1956-	09-30-83 08-06-84	h8.18 5.54	h1,750 845
09350700	Ruben Canyon near Gobernador.	Lat 36°44'26", long 107°14'33", Rio Arriba County, in Carson National Forest, upstream from culvert on State Highway 17, and 6.5 miles east of Gobernador.	5.06	1970-	11-21-83	3.51	(+)
09350800	Vaqueros Canyon near Gobernador.	Lat 36°43'23", long 107°16'47", Rio Arriba County, 100 ft east of State Highway 17, and 4.2 miles east of Gobernador.	60.5	1956-	08-06-84	4.00	275
09355700	Gobernador Canyon near Gobernador.	Lat 36°41'05", long 107°25'10", San Juan County, 0.2 mile south of State Highway 17, and 4 miles southwest of Gobernador.	19.8	1956-	- -84	---	(b)
09356400	Manzanares Canyon near, Turley.	Lat 36°44'15", long 107°42'15", San Juan County, 600 ft above culvert on State Highway 17, and 4.2 miles east of Turley.	3.20	1956-	10-03-83	1.61	234
09356520	Burro Canyon near Lindrith.	Lat 36°16'21", long 107°14'46", Rio Arriba County, upstream from culvert on State Highway 537, 11.5 miles west of Lindrith.	9.11	1970-	- -84	---	(a)
09357200	Gallegos Canyon tributary near Nageezi.	Lat 36°24'59", long 107°51'45", San Juan County, at culvert on State Highway 44, 1.1 miles northwest of Huerfano Trading Post, and 12.5 miles northwest of Nageezi.	.20	1952-	07-12-84	4.38	295
09357230	West Draw near Farmington.	Lat 36°35'24", long 108°11'03", San Juan County, 15 ft upstream of culvert on State Highway 371, 11 miles south of Farmington.	.32	1975-	08-17-84	2.92	(+)
09367400	La Plata River tributary near Farmington.	Lat 36°47'10", long 108°13'31", San Juan County, about 700 ft upstream from culvert on State Highway 17 and 4.1 miles northwest of Farmington.	1.03	1970-	08-23-84	d4.67	382

Annual maximum discharge at crest-stage partial-record stations

SAN JUAN RIVER BASIN - Continued

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft^3/s)
09367530	Locke Arroyo near Kirtland.	Lat 36°43'51", long 108°17'46", San Juan County, on upstream side of abandoned culvert, 200 ft above U.S. Highway 550, 0.4 mile above mouth, and 3.3 miles east of Kirtland.	2.96	1951-	- -84	---	(k)
09367550	Stevens Arroyo near Kirtland.	Lat 36°45'56", long 108°21'59", San Juan County, upstream from gravel road to Young's Lake, 0.6 mile north of El Paso Natural Gas, San Juan Plant, and 2.3 miles north of Kirtland.	4.52	1970-	06-01-84	11.03	(+)
09367840	Yazzie Wash near Mexican Springs.	Lat 35°50'40", long 108°53'00", McKinley County, 5.0 miles northwest of Mexican Springs, and 23 miles north of Gallup.	2.1	1953-54 1956-	07-27-83 10-01-83	3.49 5.01	j205 620
09367900	Black Springs Wash near Mexican Springs.	Lat 35°45'40", long 108°49'00", McKinley County, 2.5 miles south of Mexican Springs and 17 miles north of Gallup.	7.05	1954-78 1979-82* 1983-	10-01-83	1.20	64
09367920	Coyote Wash tributary near Naschitti.	Lat 36°05'56", long 108°41'48", San Juan County, on bridge on U.S. Highway 666, 2.4 miles north of Naschitti, and 39 miles north of Gallup.	12.0	1967-	08-17-84	4.52	(+)
09367932	Hunter Wash tributary near Bisti Trading Post.	Lat 36°15'33", long 108°15'06", San Juan County, on left bank upstream of culverts, 1.2 mile south of Bisti Trading Post.	8.47	1975-	10-01-83	6.59	(+)
09367940	Pena Blanca Arroyo near Newcomb.	Lat 36°21'39", long 108°43'09", San Juan County, on bridge on U.S. Highway 666, 5.2 miles north of Newcomb.	46.8	1967-	- -84	---	(k)
09367980	Rattlesnake Arroyo near Shiprock.	Lat 36°46'14", long 108°43'32", San Juan County, upstream from bridge on State Highway 504, 0.8 mile west of Shiprock.	---	1980-	09-30-83 08-16-84	n2.95 2.46	(+) (+)
09368020	Malpais Arroyo near Shiprock.	Lat 36°55'33", long 108°43'26", San Juan County, upstream from bridge on U.S. Highway 666, 8.3 miles north of Shiprock.	---	1980-	- -84	---	(k)

LITTLE COLORADO RIVER BASIN

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Date	Annual Maximum Gage height (ft)	Annual Maximum Discharge (ft^3/s)
09386100	Largo Creek near Quemado.	Lat 34°19'25", long 108°31'40", Catron County, on downstream side of bridge on ranch road 2.5 miles southwest of Quemado.	151	1954-	- -83 10-01-83	n--- 2.63	(m) 450
09386150	Mangas Creak tributary near Pietown.	Lat 34°18'11", long 108°08'30", Catron County, above culvert on U.S. Highway 60, 1.3 miles west of Junction with state road 36 in Pietown.	a.08	g1952-84	- -84	---	(k)

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Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Date	Annual Maximum	
						Gage height (ft)	Discharge (ft^3/s)
LITTLE COLORADO RIVER BASIN - Continued							
09386200	Carrizozo Creek near Salt Lake.	Lat 34°30'39", long 109°01'35", Catron County, on left downstream wingwall of bridge, 1.3 miles east of New Mexico-Arizona State line and 15 miles west of Salt Lake.	af560	1957-	09-26-84	2.90	(+)
09387050	Galestena Creek tributary near Black Rock.	Lat 34°58'45", long 108°40'00", McKinley County, 100 ft below bridge on State Highway 32 and 10.5 miles southeast of Black Rock.	a19	1957-	10-02-83	2.32	96
09387300	Zuni River near NM-AZ State line.	Lat 34°52'35", long 109°02'29", Cibola County, about 5 miles southwest of Ojo Caliente.	---	1981-	09-01-84	6.64	1,040
09395400	Milk Ranch Canyon near Fort Wingate.	Lat 35°25'55", long 108°33'30", McKinley County, 0.5 mile below culvert on secondary road between Fort Wingate and McGaffey, and 3 miles south of Fort Wingate.	14.0	1949-	10-01-83	0.64	<10
09395500	Puerco River at Gallup.	Lat 35°31'49", long 108°44'23", McKinley County, on right bank north of the Santa Fe RR freight depot, 1,500 ft above Second Street Bridge at Gallup.	558	1940-46* 1957-77 1977-82* 1983-	07-15-84	5.68	1,100
GILA RIVER BASIN							
09430300	Copperas Canyon near Pinos Altos.	Lat 33°04'42", long 108°12'14", Grant County, on east side of Copperas Canyon road and 15 miles north of Pinos Altos.	3.95	1963-	08-04-63	4.36	365
					09-24-64	2.47	102
					07-17-65	2.22	80
					12-23-65	2.69	124
					- -67	(b)	<80
					- -68	(b)	<80
					06-03-69	2.32	89
					07-02-70	2.44	100
					07-03-71	3.47	213
					09-03-72	4.25	337
					10-20-72	2.58	113
					- -74	(b)	<80
					- -75	(b)	<80
					08-22-76	2.33	90
					- -77	(b)	<80
					- -78	(b)	<80
					12-18-78	2.58	113
					08-13-80	4.82	650
					- -81	(b)	<80
					- -82	(b)	<80
					- -83	(b)	<80
					- -84	(b)	<80
09430900	Duck Creek at Cliff.	Lat 32°58'03", long 108°36'36", Grant County, at Cliff below bridge on State Highway 211, and 0.6 mile above mouth.	a228	1957-	10-02-83	10.68	6,600
09438200	Animas Creek near Cloverdale.	Lat 31°34'15", long 108°52'30". Hidalgo County, near head of small box canyon, 0.1 mile west of State Highway 338, and 11 miles north of Cloverdale.	157	1959-	10-02-83	4.39	530

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station Name	Location	Drainage area (mi^2)	Period of record	Annual Maximum		
					Date	Gage height (ft)	Discharge (ft^3/s)
		GILA RIVER BASIN - Continued					
09442630	Mail Hollow near Luna.	Lat 33°47'38", long 108°56'59", Catron County, upstream from culvert on U.S. Highway 180, 2.3 miles south of Luna.	4.20	1970-	10-02-83	4.35	264
09442660	Trout Creek at Luna.	Lat 33°50'50", long 108°59'38", Catron County, 500 ft downstream from bridge on Luna-Red Hill road and 2.6 miles north of Luna.	31.9	1954-	10-02-83	4.93	2,790
09442695	Negro Canyon at Aragon.	Lat 33°52'47", long 108°33'08", Catron County, above culvert on State Highway 12, at west edge of Aragon.	9.62	1958-	10-02-83	4.01	670
09442740	Tularosa River near Reserve.	Lat 33°44'00", long 108°42'10", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 miles northeast of Reserve.	426	1956-	10-02-83	9.80	3,020
09443950	Red Colt Canyon at Pleasanton.	Lat 33°15'30", long, 108°52'15", Catron County, above culvert on U.S. Highway 260, and 1 mile south of Pleasanton.	3.00	1959-	04-26-84	8.55	(+)
09455800	Steins Creek at Steins.	Lat 32°13'47", long 109°00'01", Hidalgo County, at culvert on State Highway 14, 0.9 mile west of Steins.	1.26	1959-	08-11-84	1.90	<100

< Less than
+ Discharge not yet determined.
* Operated as continuous-record gaging station.
a Approximately.
b Peak too low to register on gage.
c Estimated.
d From floodmark.
e Gage height not determined.
f Contributing area.
g Discontinued at end of year.
h Revised.
j May not have been peak for year.
k No evidence of any flow during water year.
m No record.
n Correction.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table.

Discharge measurements made at miscellaneous sites during water year 1984

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements	
					Date	Discharge (ft^3/s)
		ARKANSAS RIVER BASIN				
Chicorica Creek 07199555	Canadian River	Lat 36°57'13", long 104°23'06", Colfax County, 200 ft downstream from Lake Alice, and 4.2 miles northeast of Raton.	a15	1983-	06-15-83 07-20-83 08-18-83 09-20-83 10-19-83 11-17-83 12-14-83 01-26-84 03-08-84 04-17-84 05-31-84 07-12-84 08-22-84	33.4 1.62 .52 .02 .40 .20 .14 .23 .29 65.9 16.6 .64 .42
Raton Creek 07201050	Chicorica Creek	Lat 36°48'01", long 104°24'28", Colfax County, at mouth 7.5 miles south of Raton.	a60	---	10-20-83 11-16-83 01-26-84 03-07-84 04-17-84 05-31-84 07-07-84 08-22-84	1.40 1.16 1.95 .63 .41 .87 .09 1.63
		RIO GRANDE BASIN				
Turkey Creek 08291900	Santa Clara Creek	Lat 35°58'43", long 106°26'03", Sandoval County, at mouth on Santa Clara Indian Reservation, 400 ft downstream from boundary with Baca Location Land Grant, and 19 miles west of Espanola.	a4	---	05-04-84 06-14-84 09-14-84	2.91 1.45 .63
Alamosa Creek 08360000	Rio Grande	Lat 33°34'09", long 107°35'33", in SE¼ sec.31, T.8 S., R.7 W., Socorro County, 0.9 mile downstream from Wildhorse Creek, and 15 miles northwest of Monticello.	403	1931-42 1958-71 1972-83	11-07-83 02-16-84 05-31-84 08-30-84	6.66 6.89 6.78 7.09
Lea Lake Drain 08394018	Pecos River	Lat 33°18'56", long 104°19'56", in SW¼SE¼SW¼ sec.34, T.11 S., R.26 E., Chaves County, on downstream side of road crossing at Bottomless Lake State Park near Roswell.	---	1976-83	02-28-84 07-03-84	3.22 4.27
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW¼NE¼SW¼ sec.27, T.24 S., R.26 E., Eddy County, above all diversions, 5.5 miles east of White City.	---	1907 1919-20 1923 1935 1952-70 1974-83	11-28-83 02-01-84 04-27-84 07-30-84	12.5 12.7 13.8 10.7
Castle Springs 08405490	Black River	Lat 32°11'59", long 104°15'13", in SW¼SW¼SW¼ sec. 24, T.24 S., R.26 E., above mouth at Black River Village, Eddy County, 7.2 miles east of White City.	---	1975-83	11-28-83 02-01-84 04-27-84 07-30-84	0.38 0.35 0.57 0.32

a estimated

Water-quality partial-record stations are particular sites where chemical-quality, biological, and/or sediment data are collected systematically over a period of years for use in hydrological analyses. The data are collected less than quarterly, usually one to three times a year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SAN JUAN RIVER BASIN

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36°47'06" LONG 108°26'26")
(LOCAL IDENTIFIER - 30N.15W.29.322)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)
JAN 30...	1150	.02	5700	7490	8.2	8.0	9.0	1.0	14.6	3600	3300
JUL 12...	0950	.19	7600	8360	7.9	7.8	29.0	20.0	6.6	4000	--

DATE	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)	CARBONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
JAN 30...	400	630	910	7	7.8	327	.000	4600	190	.40
JUL 12...	480	690	1100	8	6.5	--	--	5500	190	.40

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JAN 30...	8.1	6900	330	200	170	190	180	171	82	29
JUL 12...	7.5	--	470	770	60	230	180	144	46	29

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites. Under the heading SAMPLE SOURCE, numerical values are used to indicate method of sampling: 26 indicates by automatic pump, 29 indicates dip or grab, and 40 indicates single stage sample.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

RIO GRANDE BASIN

JEMEZ RIVER AB VALLECITO CK NR JEMEZ PUEBLO, NM (LAT 35°37'30" LONG 106°43'48")
(LOCAL IDENTIFIER - 16N.02E.09.434)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR					
01...	1030	41	435	3.5	49

VALLECITO CK AT MOUTH NR JEMEZ PUEBLO, NM (LAT 35°37'27" LONG 106°43'45")
(LOCAL IDENTIFIER - 16N.02E.16.221)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR					
01...	1030	1.5	550	1.5	21

JEMEZ RIVER AT JEMEZ PUEBLO, NM (LAT 35°36'57" LONG 106°44'03")
(LOCAL IDENTIFIER - 16N.02E.16.322)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR					
01...	1110	37	460	5.0	48

JEMEZ RIVER AT HIGHWAY 4 ABOVE SAN YSIDRO, NM (LAT 35°34'30" LONG 106°45'27")
(LOCAL IDENTIFIER - 16N.02E.32.134)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR					
01...	1135	44	550	7.5	74

JEMEZ RIVER AB RIO SALADO NR SAN YSIDRO, NM (LAT 35°32'27" LONG 106°46'18")
(LOCAL IDENTIFIER - 15N.02E.07.341)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
MAR					
01...	1230	50	600	9.5	100

SAN JUAN RIVER BASIN

SECTION 5 TSE BENITA WASH AT McKINLEY MINE NR GALLUP, NM (LAT 35°38'57" LONG 108°58'40")

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
AUG 30...	0925	3750	3620	7.5	7.5	14.5	1300	310	130	400

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
AUG 30...	5	32	1800	43	.30	15	15	.060	15	.110

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
AUG 30...	.99	<.010	20	470	<3	820	2	26	3000

SECTION 5 PIT AT McKINELY COAL MINE NR GALLUP, NM (LAT 35°38'51" LONG 108°58'36")

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
AUG 30...	1140	525	575	7.8	7.7	26.0	230	68	14	27

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
AUG 30...	.8	9.7	100	7.0	.80	4.0	.020	<.10	.520

DATE	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
AUG 30...	1.2	.030	50	90	5	<1	3	1	670

BEST COPY AVAILABLE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

RADIOCHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35°05'35" LONG 106°32'40")

DATE	TRITIUM IN WATER MOLE-CULES (TU) (07012)	TRITIUM WATER MOLE-CULES COUNT ERROR (TU) (07013)
OCT 01-DEC 31	9.5	.6
JAN 01-MAR 31	20.8	.9

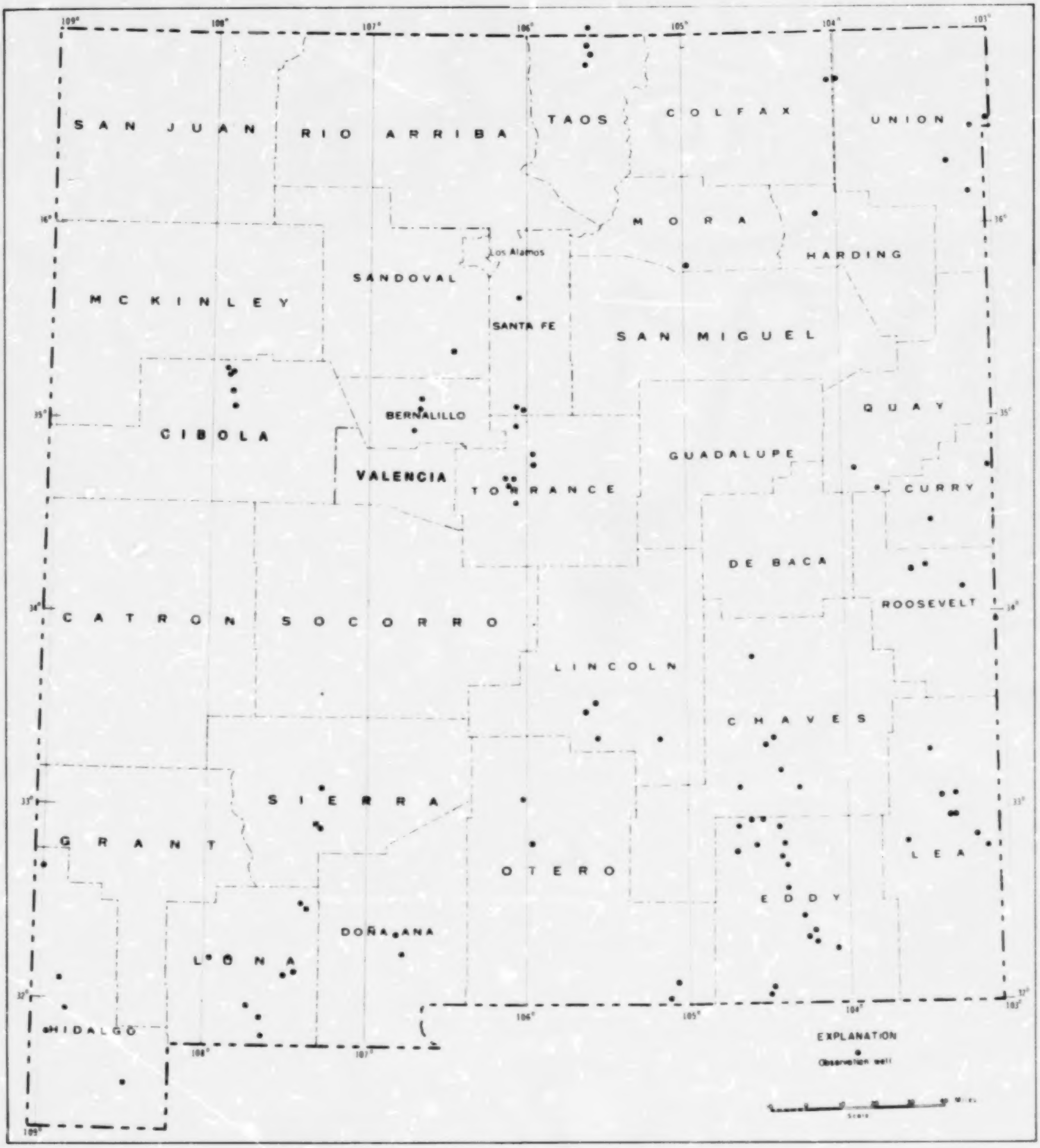
RADIOCHEMICAL ANALYSES OF ATMOSPHERIC PRECIPITATION

DATA NOT PREVIOUSLY PUBLISHED

1206 FIELD DRIVE NE, ALBUQUERQUE, NM (LAT 35°05'35" LONG 106°32'40")

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TRITIUM IN WATER MOLE-CULES (TU) (07012)	TRITIUM WATER MOLE-CULES COUNT ERROR (TU) (07013)
OCT 01-DEC 31	14.0	.8
JAN 01-MAR 31	14.1	.7
APR-01-JUN 30	29.3	1.2
JUL 01-SEP 30	15.1	.8


109°
108°
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106°
105°
104°
103°
36°
35°
34°
33°
32°
SAN JUAN
RIO ARRIBA
TAOS
COLFAX
UNION
MORA
HARDING
Los Alamos
SANDOVAL
MCKINLEY
SANTA FE
SAN MIGUEL
BERNALILLO
CIBOLA
QUAY
VALENCIA
TORRANCE
GUADALUPE
CURRY
DE BACA
ROOSEVELT
CATRON
SOCORRO
LINCOLN
CHAVES
SIERRA
GRANT
OTERO
LEA
EDDY
DOÑA ANA
LUNA
HIDALGO
EXPLANATION
Observation well
Scale
Miles

Figure 7.-- Map of New Mexico showing location of observation wells.

BERNALILLO COUNTY
Albuquerque Area

345730106431001. Local number, 09N.02E.34.322.
LOCATION.--Lat 34°57'30", long 106°43'10", Hydrologic Unit 13020203. Owner: Denison.
AQUIFER.--Santa Fe Group of middle (?) Miocene to Pleistocene (?) Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in, depth unknown.
DATUM.--Altitude of land-surface datum is 4,910 ft. Measuring point: Top of casing, 1.38 ft above land-surface datum.
PERIOD OF RECORD.--July 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.22 ft below land-surface datum, Aug. 10, 1973; lowest, 16.30 ft below land-surface datum, Jan. 12, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 12	13.08
July 11	11.90

350655106395001. Local number, 10N.02E.12.223.
LOCATION.--Lat 36°06'55", long 106°39'50", Hydrologic Unit 13020203. Owner: City of Albuquerque.
AQUIFER.--Alluvium and Santa Fe Group.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in, depth 950 ft.
DATUM.--Altitude of land-surface datum is 4,962 ft. Measuring point: Top north side of casing, 6.00 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1953, Jan. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.10 ft below land-surface datum, Apr. 16, 1953, lowest measured, 34.74 ft below land-surface datum, Aug. 31, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 12	30.00
July 11	30.05

350415106403001. Local number, 10N.02E.24.413.
LOCATION.--Lat 35°04'15", long 106°40'30", Hydrologic Unit 13020203. Owner: City of Albuquerque.
AQUIFER.--Alluvium and Santa Fe Group.
WELL CHARACTERISTICS--Drilled observation water-table well, diameter 6 in, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,945 ft. Measuring point: Top east side of casing, 5.50 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1956 to current year.
EXTREMES FOR PERIOD OF RECORD--Highest water level measured, 10.09 ft below land-surface datum, Jan. 12, 1984; lowest measured, 27.05 ft below land-surface datum, Aug. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 12	10.09
July 11	10.11

CHAVES COUNTY
Roswell Basin

334645104344501. Local number, 07S.23E.23.244.
LOCATION.--Lat 33°46'45", long 104°34'45", Hydrologic Unit 13060005. Owner: Jess Corn.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 14 in, depth 426 ft.
DATUM.--Altitude of land-surface datum is 3,810 ft. Measuring point: Lower outer edge of mouth of discharge pipe, 3.71 ft above land-surface datum.
PERIOD OF RECORD.--May 1951-Mar. 1960, Jan. 1962-Jan. 1966, Jan. 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 239.83 ft below land-surface datum, May 26, 1951; lowest, 290.80 ft below land-surface datum, Aug. 21, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 17	282.90
Aug. 27	283.59

CHAVES COUNTY
Roswell Basin

332615104303601. Local number, 10S.24E.21.212.
LOCATION.--Lat 33°26'15", long 104°30'36", Hydrologic Unit 13060008. Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in, depth 324 ft.
DATUM.--Altitude of land-surface datum is 3,580.65 ft. Measuring point: Top of recorder shelf, 3.60 ft above land-surface datum.
PERIOD OF RECORD.--June 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 6.06 ft below land-surface datum, Jan. 19, 1946; lowest, 74.40 ft below land-surface datum, July 30, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	64.62	60.23	57.82	55.93	54.71	54.78	59.24	62.83	61.89	60.14	64.08	61.37
10	63.70	59.76	57.43	55.73	54.67	55.23	59.44	63.13	62.84	61.22	62.37	61.29
15	62.93	59.33	57.10	55.54	54.65	55.74	60.98	63.24	63.76	62.63	61.13	62.10
20	62.07	58.79	56.76	55.40	54.78	56.56	61.52	60.87	61.48	64.21	60.64	62.10
25	61.52	58.40	56.50	---	54.63	57.41	61.92	61.20	60.71	64.62	60.72	61.37
EOM	60.83	58.22	56.21	54.83	54.82	58.72	61.68	61.95	60.16	64.34	61.34	60.02

WTR YEAR 1984 HIGHEST 54.60 FEB 26, 1984 LOWEST 66.53 JUL 24, 1984

331930104261001. Local number, 11S.25E.29.34333.
LOCATION.--Lat 33°19'30", long 104°26'10", Hydrologic Unit 13060007. Owner: Valle Ranch.
AQUIFER.--Valley Fill
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 160 ft, cased to 160 ft.
DATUM.--Altitude of land-surface datum is 3,535 ft. Measuring point: Edge of pump base, southeast corner, at land-surface datum.
PERIOD OF RECORD.--Aug. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.20 ft below land-surface datum, Jan. 13, 1975; lowest measured, 21.72 ft below land-surface datum, Aug. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 25	18.36
Aug.	pumping

332200104270001. Local number, 12S.25E.09.422.
LOCATION.--Lat 33°22'00", long 104°27'00", Hydrologic Unit 13060007. Owner: Cumberland Townsite.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, reported depth 90 ft, cased to 90 ft.
DATUM.--Altitude of land-surface datum is 3,564 ft. Measuring point: Top of 3/4 in collar, 0.62 ft above land-surface datum.
PERIOD OF RECORD.--May 1937 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.64 ft below land-surface datum, Oct. 16, 1941; lowest measured, 83.06 ft below land-surface datum, Aug. 21, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 16	77.29
Aug. 27	78.01

331205104245101. Local number, 12S.25E.23.344.
LOCATION.--Lat 33°12'05", long 104°24'51", Hydrologic Unit 13060007. Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 to 7 in, depth 930 ft, 9 in casing 0-304 ft, 7 in casing 304-714 ft.
DATUM.--Altitude of land-surface datum is 3,539 ft. Measuring point: Top of recorder shelf, 2.90 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.55 ft below land-surface datum, Feb. 5, 1975; lowest, 199.68 ft below land-surface datum, June 20, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	93.39	45.60	34.26	29.42	31.94	40.75	122.28	116.06	107.37	80.67	124.72	96.76
10	76.03	43.73	33.06	28.91	32.25	56.32	112.56	118.62	107.70	101.39	85.64	91.62
15	71.00	41.21	32.38	28.44	34.68	79.56	130.44	121.57	116.12	116.60	64.68	108.98
20	58.37	38.21	31.32	28.08	---	85.06	129.01	80.62	86.94	136.75	65.82	113.29
25	52.17	36.19	30.48	27.84	37.28	86.40	120.56	108.27	77.17	136.50	81.14	105.11
EOM	48.72	35.51	30.26	29.82	40.79	105.86	105.99	111.92	74.99	136.58	92.28	71.01

WTR YEAR 1984 HIGHEST 27.44 JAN 23, 1984 LOWEST 137.23 JUL 24, 1984

CHAVES COUNTY
Roswell Basin

331524104245101. Local number, 12S.25E.23.344A.
LOCATION.--Lat 33°15'24", long 104°24'51", Hydrologic Unit 13060007. Owner: U.S. Geological Survey.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation well, diameter 7 in, total depth 231 ft, cased to total depth, perforated 105-231 ft.
DATUM.--Altitude of land-surface datum is 3,540. Measuring point: Top of recorder shelf 2.90 ft above land-surface datum.
PERIOD OF RECORD.--1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 102.79 ft below land-surface datum, April 6 and 14, 1969; lowest, 111.17 below land-surface datum, Sept. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	110.17	110.14	110.00	109.56	109.35	109.13	108.80	109.00	109.25	109.32	109.49	109.60
10	110.13	110.13	109.88	109.57	109.18	109.03	108.84	109.05	109.26	109.30	109.58	109.52
15	110.20	110.14	109.80	109.51	109.30	109.01	108.90	109.11	109.30	109.33	109.59	109.56
20	110.26	110.01	109.68	109.56	109.19	108.90	108.88	109.10	109.33	109.33	109.58	109.48
25	110.28	109.88	109.68	109.39	109.01	108.84	108.89	109.20	109.30	109.40	109.60	109.65
EOM	110.15	110.08	109.68	109.38	109.02	108.83	109.00	109.18	109.30	109.43	109.57	109.57

WTR YEAR 1984 HIGHEST 108.67 APR 1, 1984 LOWEST 110.28 OCT 25, 1983

331002104272001. Local number, 13S.25E.27.211.
LOCATION.--Lat 33°10'02", long 104°27'20", Hydrologic Unit 13060007. Owner: Hal Bogle.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian observation well completed in San Andres Limestone, diameter 10 in, depth 880 ft.
DATUM.--Altitude of land-surface datum is 3,523.76 ft. Measuring point: Top of recorder shelf 3.59 ft above land-surface datum.
PERIOD OF RECORD.--1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.94 ft above land-surface datum, Jan. 13, 1942; lowest, 198.30 ft below land-surface datum, July 18, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	101.75	40.90	27.62	21.72	26.46	36.77	136.35	120.22	119.66	85.74	139.60	---
10	78.13	38.83	25.78	21.17	28.25	52.60	133.75	137.18	115.78	116.70	93.50	---
15	74.54	36.70	25.70	20.75	30.35	78.41	128.52	144.34	131.80	141.84	68.66	---
20	57.53	32.46	24.20	21.15	29.88	94.33	146.60	---	92.75	151.27	68.66	---
25	49.75	29.60	22.85	20.70	35.82	100.50	133.87	113.08	78.66	163.00	---	---
EOM	43.95	28.77	23.13	22.00	41.55	125.00	115.55	122.30	80.00	154.76	---	70.74

WTR YEAR 1984 HIGHEST 20.33 JAN 23, 1984 LOWEST 169.83 JUL 26, 1984

330640104174501. Local number, 14S.26E.12.433B.
LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007. Owner: C. B. Donaghay.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 13 in, depth 125 ft, cased 0-125 ft, perforated 50-115 ft.
DATUM.--Land-surface datum is 3,396.4 ft above mean sea level. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--Jan. 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.50 ft below land-surface datum, Jan. 22, 1942; lowest measured, 23.77 ft below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan.	not measured
Aug. 27	19.54

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CHAVES COUNTY
Roswell Basin

325845104295501. Local number, 15S.24E.25.433.
LOCATION.--Lat 32°58'45", long 104°29'55", Hydrologic Unit 13060007. Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled artesian observation well, diameter 8 5/8 in, depth 910 ft, casing 0-548 ft.
DATUM.--Altitude of land-surface datum is 3,528.92 ft. Measuring point: Top of recorder shelf, 3.15 ft above land-surface datum.
PERIOD OF RECORD.--1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 0.67 ft above land-surface datum, Jan. 23, 1984; lowest, 102.30 ft below land-surface datum, July 17, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	22.69	3.49	1.56	+.26	2.50	9.73	---	---	---	33.85	---	---
10	18.06	3.03	1.78	.30	4.38	20.91	---	---	36.37	56.95	---	---
15	15.23	3.49	1.29	.03	2.46	44.80	---	50.68	36.37	56.90	---	---
20	10.34	2.30	1.38	.32	7.98	43.79	---	29.21	41.42	65.4[illegible]	19.41	44.47
25	6.43	2.22	.88	.28	7.67	---	76.03	---	37.42	63.56	26.33	30.73
EOM	4.65	1.94	.69	.07	17.19	59.24	70.13	57.50	---	72.36	52.94	13.40

WTR YEAR 1984 HIGHEST +.67 JAN 23, 1984 LOWEST 78.57 APR 25, 1984

CIBOLA COUNTY
Grants-Bluewater Area

350400107510501. Local number, 10N.10W.26.331.
LOCATION.--Lat 35°04'00", long 107°51'05", Hydrologic Unit 13020207 Owner: Monico Mirabal.
AQUIFER.--Glorieta Sandstone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 216 ft.
DATUM.--Altitude of land-surface datum is 6,455 ft. Measuring point: Top of 1/2 in hole in pump base, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.18 ft below land-surface datum, Feb. 21, 1952; lowest measured, 34.69 ft below land-surface datum, Jan. 17, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 11	30.15
Aug. 14	30.05

350925107523001. Local number, 11N.10W.27.241.
LOCATION.--Lat 35°09'25", long 107°52'30", Hydrologic Unit 13020207. Owner: City of Grants.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled industrial water-table well, diameter 16 to 12 in, depth 158 ft, perforated to 58 ft.
DATUM.--Altitude of land-surface datum is 6,840 ft. Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--Feb. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.86 ft below land-surface datum, Feb. 20, 1953; lowest measured, 39.08 ft below land-surface datum, Aug. 1, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 11	22.55
Aug. 14	25.39

351400107524201. Local number, 12N.10W.29.434.
LOCATION.--Lat 35°14'00", long 107°52'42", Hydrologic Unit 13020207. Owner: A. R. Card.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 in, reported depth 205 ft, cased 0-150 ft, perforated 93-130 ft.
DATUM.--Altitude of land-surface datum is 6,552 ft. Measuring point: Lower edge of hole in north side of casing, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1944, Feb. 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.46 ft below land-surface datum, Oct. 14, 1944; lowest measured, 107.61 ft below land-surface datum, Aug. 6, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 11	87.87 c
Aug. 15	76.79

+	Water level above land-surface.
c	Nearby well pumping.

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CIBOLA COUNTY
Grants-Bluewater Area

351610107513501. Local number, 12N.11W.14.213.

LOCATION.--Lat 35°16'10", long 107°51'35", Hydrologic Unit 13020207. Owner: Duane Berryhill.

AQUIFER.--Alluvium of Quaternary Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in, depth 130 ft, surface casing 5 ft.

DATUM.--Land-surface datum is 6,605.4 ft. Measuring point: Top of 4 in casing, 3.70 ft above land-surface datum (since Feb. 10, 1966).

PERIOD OF RECORD.--June 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.46 ft below land-surface datum, Aug. 14, 1984; lowest measured, 101.39 ft below land-surface datum, June 10, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 11	83.31
Aug. 14	82.46

COLFAX COUNTY
Capulin Basin

364500104031501. Local number, 29N.27E.16.222.

LOCATION.--Lat 36°45'00", long 104°03'15", Hydrologic unit 11040001. Owner: John King.

AQUIFER.--Alluvium.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in, depth 120 ft, cased to 20 ft.

DATUM.--Land-surface datum is 6,821.5 ft above mean sea level. Measuring point: Top of casing, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1957-Feb. 1969, Feb. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.65 ft below land-surface datum, Feb. 3 and Aug. 24, 1960; lowest measured, 9.37 ft below land-surface datum, Aug. 13, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 14	8.33
July 18	7.77

COSTILLA COUNTY (in Colorado)
Sunshine Valley

370009105410001. Local number, 01N.74W.33.322.

LOCATION.--Lat 37°00'09", long 105°41'00", Hydrologic unit 13020101. Owner: Waller and Allen.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 15 in, depth 232 ft, casing information not available.

DATUM.--Altitude of land-surface datum is 7,495 ft. Measuring point: Edge of hole inside pump base, 2.00 ft above land-surface datum (since 1971).

PERIOD OF RECORD.--Feb. 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.82 ft below land-surface datum, Aug. 26, 1968; lowest measured, 139.24 ft below land-surface datum, Sept. 2, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 15	137.03
July 19	137.10

CURRY COUNTY
Clovis area

342358103093601. Local number, 02N.36E.15.111.

LOCATION.--Lat 34°23'58", long 103°09'36", Hydrologic Unit 12050001. Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter, depth and casing information not available.

DATUM.--Altitude of land-surface datum is 4,227 ft. Measuring point: Top of concrete base 1.00 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 266.89 ft below land-surface datum, Jan. 4, 1974; lowest measured, 289.58 ft below land-surface datum, Aug. 29, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 18	282.48
Aug. 29	289.58

CURRY COUNTY
Clovis area

342815103270001. Local number, 03N.34E.23.433.
LOCATION.--Lat 34°28'15", long 103°27'00", Hydrologic Unit 12050001. Owner: Monte Matlock.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in, depth 418 ft, cased to 418 ft, perforated 365-418 ft.
DATUM.--Altitude of land-surface datum is 4,432 ft. Measuring point: Top of casing, level with concrete base, 0.40 ft above land-surface datum (since 1967).
PERIOD OF RECORD.--Apr. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft below land-surface datum, Mar. 16, 1957; lowest measured, 360.64 ft below land-surface datum, July 23, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 18	354.54
Aug. 29	354.68

343743103201501. Local number, 05N.34E.21.443.
LOCATION.--Lat 34°37'43", long 103°20'15", Hydrologic Unit 11120101. Owner: Garrett Farms.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled abandoned irrigation well, diameter 16 in, depth 510 ft.
DATUM.--Altitude of land-surface datum is 4,632 ft. Measuring point: Top of 4 ft X 4 ft concrete pump base, 0.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 6, 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 440.14 ft below land-surface datum, Jan. 6, 1971; lowest measured, 448.41 ft below land-surface datum, Jan. 6, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 17	443.73
Aug. 30	443.36

343615103123801. Local number, 05N.35E.35.313.
LOCATION.--Lat 34°36'15", long 103°12'38", Hydrologic Unit 11120101. Owner: S. W. Pipkin.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation well, diameter 16 in, depth 527 ft.
DATUM.--Altitude of land-surface datum is 4,504 ft. Measuring point: Top of casing 0.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 376.40 ft Mar. 26, 1954; lowest measured, 441.52 ft Aug. 23, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 17	440.93
Aug. 30	442.44

344500103032001. Local number, 06N.37E.08.333.
LOCATION.--Lat 34°45'00", long 103°03'20", Hydrologic Unit 11120101. Owner: Paul Harrison.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 400 ft, casing information not available.
DATUM.--Altitude of land-surface datum is 4,430 ft. Measuring point: Southeast anchor bolt hole, 0.10 ft above concrete base and 0.70 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 289.30 ft below land-surface datum, Jan. 3, 1975; lowest measured, 295.98 ft below land-surface datum, Aug. 15, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 17	289.40
Aug. 30	289.39

DONA ANA COUNTY
Rincon and Mesilla Valleys

322210106483001. Local number, 22S.01E.26.411.
LOCATION.--Lat 32°22'10", long 106°48'30", Hydrologic Unit 13030102. Owner: H. Wortheim.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in, depth 107 ft, cased to 107 ft.
DATUM.--Altitude of land-surface datum is 3,920 ft. Measuring point: Top of east side of casing, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.12 ft below land-surface datum, Jan. 27, 1977; lowest measured, 25.57 ft below land-surface datum, Apr. 25, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 15	13.36
July 26	10.71

321620106461501. Local number, 23S.02E.31.213.
LOCATION.--Lat 32°16'20", long 106°46'15", Hydrologic Unit 13030102. Owner: New Mexico State University.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in, reported depth 70 ft, cased to 70 ft.
DATUM.--Altitude of land-surface datum is 3,880 ft. Measuring point: Top of 5/8 in hole in pump base, 1.08 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1948, Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.13 ft below land-surface datum, Feb. 10, 1948; lowest measured, 29.12 ft below land-surface datum, Jan. 7, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 14	23.46
July 26	22.50

EDDY COUNTY
Roswell Basin

325735104360701. Local number, 16S.24E.04.23123.
LOCATION.--Lat 32°57'35", long 104°36'07", Hydrologic Unit 13060007. Owner: Ellis Hunlic.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter not available, depth 610 ft.
DATUM.--Altitude of land-surface datum is 3,623 ft. Measuring point: Southwest side of pump, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 85.96 ft below land-surface datum, Jan. 21, 1982; lowest measured, 100.54 ft below land-surface datum, Aug. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 27	84.40
Aug. 27	88.31

325638104274801. Local number, 16S.25E.11.111A.
LOCATION--Lat 32°56'38", long 104°27'48", Hydrologic Unit 13060007. Owner: U.S. Geological Survey.
AQUIFER.--Valley Fill.
WELL CHARACTERISTIC.--Drilled observation well, diameter 7 in, depth 171 ft, casing 0-171 ft, perforated 94-170 ft.
DATUM.--Altitude of land-surface datum is 3,450 ft. Measuring point: Top of recorder shelf 3.00 ft above land-surface datum.
PERIOD OF RECORD.--1964 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.90 ft below land-surface datum, Feb. 18, 1966; lowest measured, 62.66 ft below land-surface datum, Aug. 26, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	59.79	59.37	58.70	58.26	57.97	58.27	59.34	60.41	61.22	61.86	62.31	62.38
10	59.77	59.26	58.62	58.20	57.93	58.41	59.54	60.57	61.32	61.90	62.39	62.41
15	59.72	59.15	58.52	58.14	57.92	58.54	59.73	60.72	61.47	61.99	62.33	62.46
20	59.67	59.01	58.43	58.10	57.98	58.73	59.50	60.84	61.58	62.05	62.23	62.47
25	59.58	58.91	58.39	58.04	57.99	58.91	60.08	60.96	61.66	62.15	62.23	62.51
EOM	59.46	58.82	58.33	58.01	58.11	59.16	60.26	61.09	61.76	62.23	62.32	62.50

WTR YEAR 1984 HIGHEST 57.90 FEB 14, 1984 LOWEST 62.50 SEPT 28, 1984

EDDY COUNTY
Roswell Basin

325445104253501. Local number, 16S.26E.19.211.
LOCATION.--Lat 32°54'45", long 104°25'35", Hydrologic Unit 13060007. Owner: H. V. Parker.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in, depth 107 ft, cased to 107 ft.
DATUM.--Land-surface datum is 3,397.9 ft above mean sea level. Measuring point: Hole in top of pump, west side, 0.30 ft above top of casing (since 1975).
PERIOD OF RECORD.--Jan. 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.34 ft below land-surface datum, Jan. 15, 1942; lowest measured, 110.68 ft below land-surface datum, Sept. 16, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 8	106.16
Aug.	pumping

324930104234501. Local number, 17S.26E.21.112
LOCATION.--Lat 32°49'30", long 104°23'45", Hydrologic Unit 13060007. Owner: Western Land Co., Inc.
AQUIFER.--Artesia Group.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in, depth 242 ft, cased to 242 ft.
DATUM.--Altitude of land-surface datum is 3,373 ft. Measuring point: 3/4 in plug on discharge pipe, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1938-Jan. 1945, Jan. 1947-Aug. 1958, Jan. 1960-Jan. 1963, Jan. 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.23 ft below land-surface datum, Jan. 13, 1955; lowest measured, 109.80 ft below land-surface datum, Aug. 12, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 25	97.44
Aug.	pumping

324624104244501. Local number, 18S.26E.06.442A.
LOCATION.--Lat 32°46'24", long 104°24'45", Hydrologic Unit 13060007. Owner: Pecos Valley Artesian Conservancy District.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 in, depth 1,008 ft, cased to 726 ft.
DATUM.--Land-surface datum is 3402.10 ft above mean sea level. Measuring point: Top of recorder shelf, 3.40 ft above land-surface datum.
REMARKS.--Depth to artesian aquifers 768 ft, 820 ft, 889 ft, and 999 ft.
PERIOD OF RECORD.--June 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.79 ft below land-surface datum, Jan. 26, 1962; lowest, 209.15 ft below land-surface datum, July 31-Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	142.64	117.20	105.43	97.28	92.10	94.80	133.28	144.92	140.02	139.78	162.07	140.24
10	137.04	114.86	103.84	96.19	91.48	98.39	138.45	141.01	143.94	146.87	150.72	139.33
15	134.20	112.95	102.58	94.90	90.73	103.91	143.83	139.99	149.72	150.98	135.81	151.00
20	127.92	110.41	100.90	94.04	90.81	110.27	149.26	128.84	141.03	153.52	131.25	153.92
25	123.83	108.64	99.97	92.91	93.97	118.09	147.12	131.09	133.12	156.26	134.38	150.94
EOM	119.67	107.33	98.71	91.71	94.08	126.77	143.65	140.64	133.17	156.61	141.18	137.83

WTR YEAR 1984 HIGHEST 90.67 FEB 18, 1984 LOWEST 166.76 AUG 7, 1984

324620104255101. Local number, 18S.26E.06.442B.
LOCATION.--Lat 32°46'20", long 104°25'51", Hydrologic Unit 13060007. Owner: U.S. Geological Survey
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation well, diameter 7 in, depth 246 ft, casing 0-246 ft.
DATUM.--Altitude of land-surface datum is 3,042 ft. Measuring point: Top of recorder shelf, 2.70 ft above land-surface datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 106.83 ft below land-surface datum, Jan. 7, 1974; lowest measured, 140.59 ft below land-surface datum, Sept. 13, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	138.54	134.03	130.02	126.32	123.63	121.73	125.05	131.73	133.13	134.71	136.73	127.42
10	137.77	133.39	129.30	125.96	122.94	121.41	126.47	131.98	133.69	135.07	137.04	---
15	137.25	132.78	128.59	125.41	122.70	121.31	128.34	132.38	134.31	135.57	136.62	---
20	136.60	131.82	127.88	125.09	122.41	121.75	129.33	132.33	134.70	135.96	136.03	---
25	135.97	131.00	127.45	124.40	121.76	122.49	130.55	132.35	134.51	136.48	135.77	125.15
EOM	134.77	130.77	126.90	123.99	121.74	123.98	131.66	132.67	134.48	136.50	135.46	124.30

WTR YEAR 1984 HIGHEST 121.09 MAR 11, 1984 LOWEST 139.02 OCT 1, 1983

EDDY COUNTY
Roswell Basin

324325104233001. Local number, 18S.26E.28.122.
LOCATION.--Lat 32°43'25", long 104°23'30", Hydrologic Unit 13060011. Owner: Town of Dayton.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in, depth 250 ft, cased to 182 ft, casing slotted 92-182 ft.
DATUM.--Altitude of land-surface datum is 3,403 ft. Measuring point: Top of casing, 0.06 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.79 ft below land-surface datum, Feb. 5, 1952; lowest, 124.87 ft below land-surface datum, Feb. 25, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	121.28	121.28	121.37	121.29	121.46	121.56	121.40	121.47	121.49	121.63	121.65	121.68
10	121.20	121.34	121.34	121.38	121.34	121.44	121.50	121.42	121.56	121.62	121.67	121.64
15	121.27	121.41	121.30	121.38	121.43	121.43	121.52	121.46	121.57	121.66	121.67	121.73
20	121.35	121.28	121.22	121.40	121.45	121.43	121.39	121.44	121.58	121.61	121.66	121.60
25	121.39	121.21	121.29	121.40	121.29	121.38	121.39	121.47	121.55	121.67	121.68	121.71
EOM	121.26	121.38	121.33	121.40	121.35	121.50	121.51	121.45	121.57	121.62	121.66	121.62

WTR YEAR 1984 HIGHEST 121.18 JAN 11, 1984 LOWEST 121.73 SEPT 12, 30, 1984

Carlsbad Area

322652104141901. Local number, 21S.26E.36.221.
LOCATION.--Lat 32°26'52", long 104°14'19", Hydrologic Unit 13060011. Owner: City of Carlsbad.
AQUIFER.--Capitan Limestone.
WELL CHARACTERISTICS.--Drilled municipal well, diameter 20 in, depth 327 ft, casing 0-290 ft.
DATUM.--Altitude of land-surface datum is 3,121.84 ft. Measuring point: Top of recorder shelf, 4.14 ft above land-surface datum.
PERIOD OF RECORD.--April 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.23 ft below land-surface datum, Jan. 9 and Feb. 15, 1975; lowest measured, 26.07 ft below land-surface datum, Aug. 2, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	23.61	---	---	22.65	22.30	22.04	22.96	23.67	23.37	23.12	23.88	21.61
10	23.42	---	---	22.66	22.04	22.00	23.01	23.95	23.72	23.43	23.14	21.60
15	23.26	---	---	22.53	22.04	22.15	23.37	24.16	23.88	23.35	21.82	22.11
20	23.19	---	---	22.49	22.13	22.79	23.26	23.53	23.49	23.49	21.77	22.03
25	---	22.87	---	22.33	21.92	22.84	23.48	23.49	23.43	23.52	21.71	22.08
EOM	----	---	22.76	22.38	21.95	22.93	23.57	23.52	23.22	23.60	21.73	21.88

WTR YEAR 1984 HIGHEST 21.53 SEPT 8, 1984 LOWEST 24.16 MAY 1984

323022104122501. Local number, 21S.27E.05.414.
LOCATION.--Lat 32°30'22", long 104°12'25", Hydrologic Unit 13060011. Owner: U. S. Government.
AQUIFER.--Capitan Limestone.
WELL CHARACTERISTICS.--Drilled oil test well, diameter 13 3/8 in to 602 ft, 8 5/8 in 602 to 2,500 ft, perforated 1,007 to 1,170 ft.
DATUM.--Land-surface datum is 3,280 ft above mean sea level. Measuring point: Top of casing, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 191.84 ft below land-surface datum, Feb. 16, 1975; lowest measured, 201.27 ft below land-surface datum, Aug. 4, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	196.83	196.89	---	---	196.84	196.77	196.71	196.79	196.83	196.87	196.92	196.84
10	196.83	196.88	---	---	196.83	196.75	196.71	196.80	196.83	196.87	196.93	196.81
15	196.84	196.88	---	---	196.81	196.73	196.72	196.80	196.84	196.88	196.92	196.79
20	196.86	196.88	---	196.87	196.80	196.73	196.79	196.81	196.85	196.89	196.90	196.78
25	196.90	---	---	196.86	196.79	196.72	196.79	196.82	196.86	196.90	196.87	196.76
EOM	196.90	---	---	196.85	196.78	196.72	196.80	196.83	196.86	196.91	196.84	196.75

WTR YEAR 1984 HIGHEST 196.71 APR 2-14, 1984 LOWEST 196.93 AUG 14-17, 1984

EDDY COUNTY
Carlsbad Area

322640104165801. Local number, 21S.27E.32.112.
LOCATION.--Lat 32°26'40", long 104°16'58", Hydrologic Unit 13060011. Owner: L. E. Loman.
AQUIFER.--Capitan Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled domestic and irrigation artesian well, diameter 12 in, reported depth 305 ft.
DATUM.--Altitude of land-surface datum is 3,112 ft. Measuring point: Top of casing, 0.40 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.64 ft below land-surface datum, Jan. 17, 1950; lowest measured, 17.35 ft below land-surface datum, Aug. 9, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 9	13.48
Aug. 24	13.37

322710104073901. Local number, 21S.28E.30.141.
LOCATION.--Lat 32°27'10", long 104°07'39", Hydrologic Unit 13060011. Owner: Forrest Miller.
AQUIFER.--Capitan Limestone.
WELL CHARACTERISTICS.--Drilled exploration well, diameter 8 5/8 - 5 1/2 in, reported depth 1,060 ft, plugged back, total depth 906 ft.
DATUM.--Altitude of land-surface datum is 3,181.71 ft. Measuring point: Top of casing 1.64 ft above land-surface datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 89.72 ft below land-surface datum, Jan. 9 and Feb. 10, 1975; lowest measured, 98.68 ft below land-surface datum, Aug. 3, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	95.72	94.95	94.93	94.67	94.31	94.03	94.85	95.63	95.34	95.06	95.79	93.53
10	95.55	95.06	94.90	94.73	94.02	93.97	94.97	95.83	95.68	95.34	95.47	93.56
15	95.38	95.09	94.76	94.54	94.04	94.09	95.33	96.07	95.84	95.25	93.90	94.04
20	95.30	94.88	94.68	94.55	94.13	94.70	95.19	95.44	95.47	95.37	93.81	93.83
25	95.34	94.87	94.86	94.33	93.90	94.83	95.34	95.42	95.31	95.39	93.66	93.96
EOM	95.01	95.02	94.79	94.28	93.89	94.88	95.42	95.40	95.10	95.52	93.69	93.78

WTR YEAR 1984 HIGHEST 93.39 SEPT 7, 1984 LOWEST 95.90 OCT 1, 1983

Los Medanos Area

322912103485702. Local number, 21S.31E.18.2111 (W-28).
LOCATION.--Lat 32°29'12", long 103°48'57", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 801 ft, cased to 801, perforated 420 to 446 ft.
DATUM.--Altitude of land-surface datum is 3,346.8 ft. Measuring point: Top of casing, 2.50 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 274.19 ft below land-surface datum, Nov. 21, 1983; lowest measured, 274.81 ft below land-surface datum, Jan. 23, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	274.19
Jan. 23	274.81

322912103485703. Local number, 21S.31E.18.2111 (W-28).
LOCATION.--Lat 32°29'12", long 103°48'57", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Rustler Formation-Salado Formation contact.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 801 ft, cased to 801 ft, perforated 549 to 589 ft.
DATUM.--Altitude of land surface datum is 3,346.8 ft. Measuring point: Top of 2 3/8 in tubing, 2.90 ft above land-surface datum.
PERIOD OF RECORD.--June 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 293.90 ft below land-surface datum, Jan. 23, 1984; lowest measured, 303.34 ft below land-surface datum, June 30, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	294.20
Jan. 23	293.90

EDDY COUNTY
Los Medanos Area

322814103531501. Local number, 21S.31E.21.1211 (W-27).
LOCATION.--Lat 32°28'14", long 103°53'15", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Magenta Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation well, diameter 5 in, depth 592 ft, cased to 592 ft, perforated 175 to 195 ft.
DATUM.--Altitude of land-surface datum is 3,177.2 ft. Measuring point: Top of casing, 1.70 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft below land-surface datum, Oct. 5, 1981; lowest measured, 107.54 ft below land-surface datum, Aug. 24, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	107.00
Jan. 23	106.87

322814103531502. Local number, 21S.31E.21.1211 (W-27).
LOCATION.--Lat 32°28'14", long 103°53'15", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 592 ft, cased to 592 ft, perforated 290 to 320 ft.
DATUM.--Altitude of land-surface datum is 3,177.2 ft. Measuring point: Top of 2 3/8 in tubing, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 105.19 ft below land-surface datum, Jan. 23, 1984; lowest measured, 106.13 ft below land-surface datum.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	105.44
Jan. 23	105.19

322632103472201. Local number, 21S.31E.33.1113 (W-30).
LOCATION.--Lat 32°26'32", long 103°47'22", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Magenta Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled obervation artesian well, diameter 5 in, depth 913 ft, cased to 913 ft, perforated 510 to 540 ft.
DATUM.--Altitude of land-surface datum is 3,427.0 ft. Measuring point: Top of casing, 1.80 ft above land-surface datum.
PERIOD OF RECORD.--May 1981 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 302.89 ft below land-surface datum, July 21, 1983; lowest measured, 336.68 ft below land-surface datum, Aug. 23, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	335.31
Jan. 23	335.14

322632103472202. Local number, 21S.31E.33.1113 (W-30).
LOCATION.--Lat 32°26'32", long 103°47'22", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 913 ft, cased to 913 ft, perforated 631 to 654 ft.
DATUM.--Altitude of land-surface datum is 3,427.0 ft. Measuring point: Top of 2 3/8 in tubing, 2.20 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 396.97 ft below land-surface datum, Jan. 23, 1984; lowest measured, 401.48 ft below land-surface datum, Aug. 23, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	398.72
Jan. 23	396.97

EDDY COUNTY

Carlsbad Area

322120104151501. Local number, 22S.26E.36.111A.
LOCATION.--Lat 32°21'20", long 104°15'15", Hydrologic Unit 13060011. Owner: Carlsbad Airfield.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 260 ft, cased to 260 ft.
DATUM.--Altitude of land-surface datum is 3,225 ft. Measuring point: Top of recorder platform, 2.70 ft above land-surface datum.
PERIOD OF RECORD.--July 1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.50 ft below land-surface datum, Oct. 14, 1942; lowest, 214.82 ft below land-surface datum, Sept. 15, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	179.77	174.61	169.14	165.30	162.90	161.43	165.52	171.70	175.46	176.23	177.98	164.44
10	179.24	173.67	168.41	164.93	162.32	161.53	166.55	172.67	175.69	176.11	178.49	164.79
15	178.61	172.73	167.61	164.43	162.08	161.64	167.32	173.36	176.03	176.52	167.49	165.78
20	177.96	171.53	166.97	164.15	161.95	162.13	167.71	173.77	176.74	176.71	164.14	166.56
25	177.11	170.58	166.44	163.56	161.38	162.68	168.83	174.11	176.87	177.33	163.18	167.35
EOM	175.71	170.02	165.91	163.22	161.44	164.12	170.60	174.99	176.59	177.76	163.59	168.61

WTR YEAR 1984 HIGHEST 161.21 MAR 3, 1984 LOWEST 180.15 OCT 1, 1983

322231104131001. Local number, 22S.27E.22.421.
LOCATION.--Lat 32°22'31", long 104°13'10", Hydrologic Unit 13060011. Owner: Enea Grandi.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, reported depth 150 ft.
DATUM.--Altitude of land-surface datum is 3,100 ft. Measuring point: Top of casing, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1947-Aug. 1968, Jan. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.43 ft below land-surface datum, Sept. 15, 1950; lowest measured, 81.10 ft below land-surface datum, Aug. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 9	45.48
Aug. 24	48.08

Los Medanos Area

322037103580902. Local number, 22S.29E.34.3423 (W-29).
LOCATION.--Lat 32°20'37", long 103°58'09", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 5 in, depth 377 ft, cased to 377 ft, perforated 10 to 45 ft.
DATUM.--Altitude of land-surface datum is 2,977.0 ft. Measuring point: Top of casing, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 7.86 ft below land-surface datum, Oct. 8, 1980; lowest measured, 11.06 ft below land-surface datum, July 18, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	9.64
Jan. 24	9.80

322037103580903. Local number, 22S.29E.34.3423 (W-29).
LOCATION.--Lat 32°20'37", long 103°58'09", Hydrologic Unit 13060011.
Owner: United States Department of Energy.
FLUID BEARING ZONE.--Rustler Formation-Salado Formation contact.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 377 ft, cased to 377 ft, perforated 216 to 250 ft.
DATUM.--Altitude of land-surface datum is 2,977.0 ft. Measuring point: Top of 2 3/8 in tubing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 17.00 ft below land-surface datum, June 9, 1980; lowest measured, 38.98 ft below land-surface datum, Aug. 25, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	37.09
Jan. 24	36.37

EDDY COUNTY
Los Medanos Area

322336103522401. Local number, 22S.30E.15.1433 (W-25).
LOCATION.--Lat 32°23'36", long 103°52'24", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Magenta Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 648 ft, cased to 648 ft, perforated 300 to 330 ft.
DATUM.--Altitude of land-surface datum is 3,212.5 ft. Measuring point: Top of casing, 1.90 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 157.75 ft below land-surface datum, Nov. 3, 1980; lowest measured, 160.27 ft below land-surface datum, Nov. 19, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	158.55
Jan. 23	158.27

322336103522402. Local number, 22S.30E.15.1433 (W-25).
LOCATION.--Lat 32°23'36", long 103°52'24", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 5 in, depth 648 ft, cased to 648 ft, perforated 445 to 475 ft.
DATUM.--Altitude of land-surface datum is 3,212.5 ft. Measuring point: Top of 2 3/8 in tubing, 2.30 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 160.36 ft below land-surface datum, Sept. 29, 1983; lowest measured, 161.29 ft below land-surface datum, Jan. 23, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	160.50
Jan. 23	161.29

322000103524802. Local number, 22S.30E.29.2322 (W-26).
LOCATION.--Lat 32°20'00", long 103°52'48", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation well, diameter 5 in, depth 503 ft, cased to 503 ft, perforated 185 to 210 ft.
DATUM.--Altitude of land-surface datum is 3,151.9 ft. Measuring point: Top of casing, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1983 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 140.81 ft below land-surface datum Nov. 21, 1983; lowest measured, 141.69 ft below land-surface datum, Aug. 24, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	140.81
Jan. 24	141.50

322204103474001. Local number, 22S.31E.29.2213 (H-1).
LOCATION.--Lat 32°22'04", long 103°47'40", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Magenta Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 7 in, depth 856 ft, cased to 856 ft, perforated 562 to 590 ft.
DATUM.--Altitude of land-surface datum is 3,403.2 ft. Measuring point: Top of casing 1.80 ft above land-surface datum.
PERIOD OF RECORD.--May 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 246.50 ft below land-surface datum, Nov. 7, 1978; lowest measured 269.85 ft below land-surface datum, May 25, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	266.43
Jan. 24	265.82

EDDY COUNTY

Los Medanos Area

322204103474002. Local number, 22S.31E.29.2213 (H-1).
LOCATION.--Lat 32°22'04", long 103°47'40", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 7 in, depth 856 ft, cased to 856 ft, perforated 675 to 703 ft.
DATUM.--Altitude of land-surface datum is 3,403.2 ft. Measuring point: Top of 2 3/8 in tubing, 2.45 ft above land-surface datum.
PERIOD OF RECORD.--May 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 365.81 ft below land-surface datum, Dec. 23, 1981; lowest measured 433.84 ft below land-surface datum, Jan. 24, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	428.04
Jan. 24	433.84

322136103473001. Local number, 22S.31E.29.4224 (H-3).
LOCATION.--Lat 32°21'36", long 103°47'30", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Magenta Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation well, diameter 6 5/8 in, depth 864 ft, cased to 864 ft, perforated 564 to 592 ft.
DATUM.--Altitude of land-surface datum is 3,388.7 ft. Measuring point: Top of casing, 1.40 ft above land-surface datum.
PERIOD OF RECORD.--May 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 238.30 ft below land-surface datum, Nov. 7, 1978; lowest measured, 259.27 ft below land-surface datum, Oct. 6, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	240.24

322136103473002. Local number, 22S.31E.29.4224 (H-3).
LOCATION.--Lat 32°21'36", long 103°47'30", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
n WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 6 5/8 in, depth 864 ft, cased to 864 ft, perforated 675 to 703 ft.
DATUM.--Altitude of surface datum is 3,388.7 ft. Measuring point: Top of 2 3/8 in tubing, 2.05 ft above land-surface datum.
PERIOD OF RECORD.--May 1977 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 390.44 ft below land-surface datum, Jan. 27, 1982; lowest measured, 410.96 ft below land-surface datum, June 22, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Nov. 21	402.94

Carlsbad Area

321721104204801. Local number, 23S.25E.24.213.
LOCATION.--Lat 32°17'21", long 104°20'48", Hydrologic Unit 13060011. Owner: City of Carlsbad.
AQUIFER.--Capitan Limestone.
WELL CHARACTERISTICS.--Drilled observation well, diameter 16 in 0-20 ft, open hole 20-900 ft.
DATUM.-- Land-surface datum is 3,501.7 ft above mean sea level. Measuring point: Top of casing, 1.17 ft above land-surface datum.
PERIOD OF RECORD.--1963 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 376.94 ft below land-surface datum, Aug. 13, 1984; lowest measured, 404.06 ft below land-surface datum, July 10, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	401.34	400.80	401.03	400.94	400.33	400.08	400.93	401.74	401.20	400.57	401.48	398.76
10	401.10	400.91	400.96	400.76	400.12	399.96	400.90	---	401.76	400.98	388.80	398.73
15	401.00	401.11	400.99	400.57	400.15	400.09	401.34	---	402.01	400.98	384.55	399.25
20	400.96	400.96	---	400.45	400.15	400.52	401.18	---	401.50	401.10	---	399.27
25	401.03	400.64	---	400.33	399.95	400.55	401.37	401.46	401.33	401.26	398.58	399.33
EOM	400.88	401.09	401.18	400.47	400.04	400.79	401.53	401.53	395.25	401.21	398.74	399.24

WTR YEAR 1984 HIGHEST 376.94 AUG 13, 1984 LOWEST 402.01 JUNE 15-16, 1984

EDDY COUNTY
Los Medanos Area

321218103504901. Local number, 24S.30E.23.2423 (H-8A).
LOCATION.--Lat 32°12'18", long 103°50'49", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Magenta Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation well, depth 505 ft, diameter 6 3/8 in casing 0-454 ft, diameter 6 1/8 in open core hole 454 to 505 ft.
DATUM.--Altitude of land-surface datum is 3,433.0 ft. Measuring point: Top of casing, 0.70 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 404.95 ft below land-surface datum, Feb. 6, 1981 and May 4, 1981; lowest measured 405.97 ft below land-surface datum, Aug. 9, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 24	405.25

321218103504902. Local number, 24S.30E.23.2423 (H-8B).
LOCATION.--Lat 32°12'18", long 103°50'49", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Culebra Dolomite Member of the Rustler Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, depth 624 ft, diameter 6 3/8 in casing 0-575 ft, diameter 6 1/8 in open core hole 575 to 624 ft.
DATUM.--Altitude of land-surface datum is 3,433.8 ft. Measuring point: Top of casing, 0.75 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1979 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 440.62 ft below land-surface datum, Feb. 17, 1983; lowest measured, 449.66 ft below land-surface datum, Jan. 2, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 24	440.90

321218103504903. Local number, 24S.30E.23.2423 (H-8C).
LOCATION.--Lat 32°12'18", long 103°50'49", Hydrologic Unit 13060011. Owner: United States Department of Energy.
FLUID BEARING ZONE.--Rustler Formation-Salado Formation contact.
WELL CHARACTERISTICS.--Drilled observation artesian well, depth 808 ft, diameter 6 3/8 in casing 0-735 ft, diameter 6 1/8 in open core hole 735 to 808 ft.
DATUM.--Altitude of land-surface datum is 3,433.0 ft. Measuring point: Top of casing 0.70 ft above land-surface surface datum.
PERIOD OF RECORD.--Oct. 1980 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 459.00 ft below land-surface datum, Oct. 7, 1980; lowest measured, 463.76 ft below land-surface datum, May 4, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 24	460.40

320257104295201. Local number, 26S.24E.09.441.
LOCATION.--Lat 32°02'57", long 104°29'52", Hydrologic Unit 13060011. Owner: John Mayes.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in, depth 100 ft, cased to 85 ft.
DATUM.--Land-surface datum is 3,749.4 ft above mean sea level. Measuring point: Top of air-line flange support, 1.40 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 40.08 ft below land-surface datum, Jan. 26, 1982; lowest measured, 54.98 ft below land-surface datum, Sept. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	42.05
Aug. 20	42.08

GRANT COUNTY
Silver City Area

324600108222501. Local number, 18S.15W.11.323
LOCATION.--Lat 32°46'00", long 108°22'25", Hydrologic Unit 15040002. Owner: Town of Silver City.
AQUIFER.--Gila Conglomerate.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in, depth 580 ft.
DATUM.--Altitude of land-surface datum is 5,845 ft. Measuring point: Top of 12 in casing, 1.50 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 262.34 ft below land-surface datum, Mar. 3, 1962; lowest measured, 293.05 ft below land-surface datum, June 24, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	290.92	290.97	290.61	291.53	291.68	---	---	292.44	292.41	292.40	291.83	291.25
10	290.78	291.09	290.77	291.44	291.57	---	---	292.56	292.59	292.46	291.22	290.91
15	290.71	290.98	290.64	291.35	291.72	---	---	292.29	292.74	292.38	291.62	291.09
20	290.46	290.67	290.68	291.33	---	---	---	292.30	292.73	292.13	291.43	290.88
25	290.85	290.55	291.36	291.38	---	---	---	292.44	292.83	292.07	291.13	290.87
EOM	290.86	290.82	291.68	291.70	---	---	---	292.52	292.56	291.83	291.17	290.98

WTR YEAR 1984 HIGHEST 290.46 OCT 20, 1983 LOWEST 293.05 JUNE 24, 1984

HARDING COUNTY
Roy Area

355352104054201. Local number, 19N.27E.05.334.
LOCATION.--Lat 35°53'52", long 104°05'42", Hydrologic Unit 11080007. Owner: Town of Roy.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 75 ft, cased to 75 ft.
DATUM.--Altitude of land-surface datum is 5,658 ft. Measuring point: Bottom edge of slot in steel casing, 3.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1967 to present.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 48.34 ft below land-surface datum, Jan. 18, 1983; lowest measured, 50.64 ft below land-surface datum, July 3, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 13	50.17
July 17	48.76

360340104085001. Local number, 21N.26E.03.4443.
LOCATION.--Lat 36°03'40", long 104°08'50", Hydrologic Unit 11080007. Owner: Unknown.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in, depth 120 ft, cased to 120 ft.
DATUM.--Altitude of land-surface datum is 5,870 ft. Measuring point: Top of 5 in galvanized casing, 0.30 ft above land-surface datum on east side.
PERIOD OF RECORD.--Jan. 1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.92 ft below land-surface datum, Jan. 28, 1976; lowest measured, 84.45 ft below land-surface datum, Sept. 3, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 13	83.14
July 17	83.14

HIDALGO COUNTY
Virden Valley

324053108594101. Local number, 19S.21W.03.414.
LOCATION.--Lat 32°40'53", long 108°59'41", Hydrologic Unit 15040002. Owner: Jones, Clouse, and Jensen.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 20 in, depth 72 ft.
DATUM.--Altitude of land-surface datum is 3,750 ft. Measuring point: Hole inside pump shell, 0.90 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.27 ft below land-surface datum, Jan. 12, 1979; lowest measured, 14.54 ft below land-surface datum, Sept. 12, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	10.65
July 16	12.86

HIDALGO COUNTY

Animas Valley

315645108493501. Local number, 27S.19W.20.343.
LOCATION.--Lat 31°56'45", long 108°49'35", Hydrologic Unit 15040003. Owner: Felix Gauthier.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 358 ft, cased to 358 ft.
DATUM.--Altitude of land-surface datum is 4,420 ft. Measuring point: Top edge of 1 1/4 in pipe in concrete pump base, 1.25 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 132.12 ft below land-surface datum, Jan. 19, 1950; lowest measured, 198.50 ft below land-surface datum, Aug. 1, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 4	192.05
July	pumping

Playas Valley

313502108275001. Local number, 31S.16W.33.233.
LOCATION.--Lat 31°35'02", long 108°27'50", Hydrologic Unit 13030201. Owner: U-Bar Ranch.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 16 in, depth 654 ft, 16 in casing.
DATUM.--Altitude of land-surface datum is 4,400 ft. Measuring point: Bottom edge of shelf, 4.05 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 44.66 ft below land-surface datum, Apr. 18-20, and 30, 1973; lowest, 54.95 ft below land-surface datum, Sept. 4, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan.	not measured
July 17	47.55

LEA COUNTY

Tatum-Lovington-Hobbs Area

331740103285001. Local number, 12S.34E.11.421.
LOCATION.--Lat 33°17'40", long 103°28'50", Hydrologic Unit 12080006. Owner: A. D. Jones.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 15 in, depth 87 ft.
DATUM.--Altitude of land-surface datum is 4,150 ft. Measuring point: Top of concrete pump base, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--May 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.57 ft below land-surface datum, May 24, 1949; lowest measured, 34.14 ft below land-surface datum, Aug. 17, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 3	32.23
Sept. 4	32.10

330400103193401. Local number, 14S.36E.32.121.
LOCATION.--Lat 33°04'00", long 103°19'34", Hydrologic Unit 12080003. Owner: E. T. Howell.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 3,990 ft. Measuring point: Top of concrete pump base, 0.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1949-Jan. 1950, Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.38 ft below land-surface datum, Jan. 19, 1949; lowest measured, 70.07 ft below land-surface datum, Jan. 14, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 4	67.00
Sept. 4	67.04

LEA COUNTY
Tatum-Lovington-Hobbs Area

325703103213201. Local number, 16S.36E.04.322.
LOCATION.--Lat 32°57'03", long 103°21'32", Hydrologic Unit 12080003. Owner: City of Lovington.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 13 in, depth 212 ft, perforated 80-208 ft.
DATUM.--Altitude of land-surface datum is 3,926 ft. Measuring point: Top of shelf, 4.00 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 63.91 ft below land-surface datum, Sept. 26-30, 1984; lowest measured, 67.11 ft below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	64.64	64.47	64.27	64.18	64.09	64.01	64.00	64.08	64.26	64.21	64.04	63.98
10	64.60	64.43	64.26	64.17	64.06	64.01	64.00	64.22	64.25	64.15	64.05	63.96
15	64.60	64.42	64.24	64.14	64.05	64.00	64.04	64.24	64.27	64.10	64.04	63.96
20	64.55	64.35	64.22	64.14	64.06	64.00	64.01	64.26	64.25	64.07	64.04	63.93
25	64.55	64.28	64.20	64.10	64.00	64.00	64.03	64.25	64.25	64.06	64.03	63.93
EOM	64.50	64.34	64.21	64.10	64.03	64.00	64.10	64.27	64.24	64.04	64.02	63.91

WTR YEAR 1984 HIGHEST 63.91 SEPT 26-30, 1984 LOWEST 64.65 OCT 1-2, 1983

325658103200001. Local number, 16S.37E.11.111.
LOCATION.--Lat 32°56'58", long 103°20'00", Hydrologic Unit 12080003. Owner: H. J. Taylor.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, reported depth 118 ft.
DATUM.--Altitude of land-surface datum is 3,900 ft. Measuring point: Top of 1 in hole in southwest side of pump, 1.34 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.93 ft below land-surface datum, Jan. 23, 1949; lowest measured, 78.64 ft below land-surface datum, Jan. 3, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 5	70.70
Sept. 4	70.05

325132103112501. Local number, 17S.38E.07.111A.
LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003. Owner: L. R. Sebings.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, reported depth 125 ft.
DATUM.--Altitude of land-surface datum is 3,740 ft. Measuring point: Edge of small pipe projecting from west side of pump, 0.96 ft above concrete pump base, and 1.91 ft above land-surface datum (since 1971).
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft below land-surface datum, Mar. 21, 1952; lowest measured, 74.15 ft below land-surface datum, July 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 4	68.05
Sept. 4	68.37

324745103082001. Local number, 17S.38E.34.113.
LOCATION.--Lat 32°47'45", long 103°08'20", Hydrologic Unit 12080003. Owner: W. E. Busby.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in, depth 125 ft, cased to 90 ft.
DATUM.--Altitude of land-surface datum is 3,660 ft. Measuring point: Top of 1/2 in hole in pump base, 0.54 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.78 ft below land-surface datum, Jan. 15, 1944; lowest measured, 62.29 ft below land-surface datum, Sept. 4, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 4	58.40
Sept. 4	62.29

LINCOLN COUNTY
Hondo Valley

333015105382201. Local number, 09S.13E.25.113.
LOCATION.--Lat 33°30'15", long 105°38'22", Hydrologic Unit 13060008, 0.4 mi southwest of intersection of Magado Creek and State Highway 48. Owner: M. W. Coll.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation and domestic water-table well, diameter 8 in, depth 90 ft, cased to 40 ft.
DATUM.--Altitude of land-surface datum is 6,750 ft. Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--Dec. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.04 ft below land-surface datum, Nov. 25, 1958; lowest measured, 44.36 ft below land-surface datum, Aug. 13, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	27.72
Aug.	pumping

333242105340701. Local number, 09S.14E.10.132.
LOCATION.--Lat 33°32'42", long 105°34'07", Hydrologic Unit 13060008, east end of village on south side of Highway U.S. 380. Owner: Village of Capitan.
AQUIFER.--Mancos Shale of Late Cretaceous Age.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 8 in, depth 324 ft, cased to 271 ft.
DATUM.--Altitude of land-surface datum is 6,340 ft. Measuring point: Top of breather hole on west side of pump base, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--June 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.34 ft below land-surface datum, Aug. 30, 1979; lowest measured, 69.77 ft below land-surface datum, Nov. 28, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 6	39.25
Aug. 21	39.56

332157105094101. Local number, 11S.18E.15.333.
LOCATION.--Lat 33°21'57", long 105°09'41", Hydrologic Unit 13060008, 0.4 mi south of Picacho Bridge on east side of Casey Canyon Road. Owner: Lincoln County Livestock Co.
AQUIFER.--Yeso Formation of Permian Age.
WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 12 in, depth 125 ft, cased to 110 ft.
DATUM.--Altitude of land-surface datum is 5,010 ft. Measuring point: Top of casing, 0.5 ft above land-surface datum.
PERIOD OF RECORD.--Oct. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.02 ft below land-surface datum, Jan. 25, 1977; lowest measured, 60.18 ft below land-surface datum, Jan. 15, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 5	51.02
Aug. 21	50.94

LUNA COUNTY
Nutt-Hockett

322930107221001. Local number, 21S.5W.8.444.
LOCATION.--Lat 32°29'30", long 107°22'10", Hydrologic Unit 13030202. Owner: Leonard Farms (formerly Jack Carter).
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 435 ft, cased to 435 ft.
DATUM.--Altitude of land-surface datum is 4,530 ft. Measuring point: Hole in NE side of pump shell, 1.60 ft above land-surface datum.
PERIOD OF RECORD.--Nov. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft below land-surface datum, Jan. 17, 1962; lowest measured, 176.23 ft below land-surface datum, Aug. 16, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 27	173.07
July	pumping

LUNA COUNTY
Mimbres Valley

321352107493901. Local number, 24S.10W.12.431.
LOCATION.--Lat 32°13'52", long 107°49'39", Hydrologic Unit 13030202. Owner: Steve Hrna.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Dug and drilled unused water-table well, diameter 36 in, reported depth 132 ft.
DATUM.--Altitude of land-surface datum is 4,330 ft. Measuring point: Top of recorder shelter shelf, 1.36 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1939 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.61 ft below land-surface datum, May 6-13, 1940; lowest, 113.30 ft below land-surface datum, Aug. 12 and 20, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT
5	---	104.08	103.70	103.43	103.49	---	---	105.82	---	---	106.20	104.32
10	---	103.99	103.63	103.53	103.31	---	---	105.92	---	---	105.96	103.94
15	104.39	104.02	103.55	103.47	103.38	---	105.26	106.10	---	---	105.82	103.92
20	104.34	103.77	103.47	103.43	---	---	105.21	106.18	---	---	105.40	103.57
25	104.36	103.57	103.58	103.41	---	---	105.42	106.38	---	106.39	104.90	103.56
EOM	104.13	103.80	103.55	103.46	---	---	105.70	106.44	---	106.23	104.59	103.27

WTR YEAR 1984 HIGHEST 103.27 JAN 11, 1984 LOWEST 106.44 MAY 29, 1984

321415107565501. Local number, 24S.11W.14.122.
LOCATION.--Lat 32°14'15", long 107°56'55", Hydrologic Unit 13030202. Owner: Charles Waldrop.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in, reported depth 210 ft, cased to 198 ft.
DATUM.--Altitude of land-surface datum is 4,405 ft. Measuring point: Top of 1 in hole in pump base, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.66 ft below land-surface datum, Jan. 23, 1952; lowest measured, 228.00 ft below land-surface datum, May 11, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 5	172.90
July 18	185.00

321015107260501. Local number, 25S.06W.02.111.
LOCATION.--Lat 32°10'15", long 107°26'05", Hydrologic Unit 13030202. Owner: C. W. Johnson, Jr.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in, depth 235 ft, perforated 180-235 ft, gravel packed.
DATUM.--Altitude of land-surface datum is 4,220 ft. Measuring point: Top of casing, 1.30 ft above land-surface datum.
PERIOD OF RECORD.--May 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft below land-surface datum, Mar. 14, 1953; lowest measured, 117.66 ft below land-surface datum, Aug. 6, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 6	30.15
July 18	47.31

320915104294501. Local number, 25S.06W.07.211.
LOCATION.--Lat 32°09'15", long 104°29'45", Hydrologic Unit 13030202. Owner: H. C. Telles.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 230 ft, cased to 230 ft.
DATUM.--Land-surface datum is 4,084.22 ft above mean sea level. Measuring point: Hole in pump base, 1.20 ft above land-surface datum (since Jan. 15, 1966).
PERIOD OF RECORD.--Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.34 ft below land-surface datum, Mar. 14, 1953; lowest measured, 122.16 ft below land-surface datum, Aug. 13, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 6	87.30
July 18	87.33

LUNA COUNTY
Mimbres

315525107374501. Local number, 27S.08W.35.122.
LOCATION.--Lat 31°55'25", long 107°37'45", Hydrologic Unit 13030202. Owner: M. M. Gibson.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 to 8 in, depth 550 ft, cased to 550 ft, perforated 155-550 ft.
DATUM.--Altitude of land-surface datum is 4,070 ft. Measuring point: Top of casing, 0.20 ft above land-surface datum.
PERIOD OF RECORD.--July 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.84 ft below land-surface datum, Mar. 16, 1953; lowest measured, 119.34 ft below land-surface datum, Aug. 3, 1981. WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 6	86.47
July 17	102.80

315905107425001. Local number, 27S.09W.01.431
LOCATION.--Lat 31°59'05", long 107°42'50", Hydrologic Unit 13030202. Owner: I. G. Burns.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 62 ft, cased to 62 ft.
DATUM.--Altitude of land-surface datum is 4,135 ft. Measuring point: Top edge of rectangular hole in pump base, 0.65 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.61 ft below land-surface datum, Jan. 19, 1954; lowest measured, 47.26 ft below land-surface datum, Aug. 11, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 6	39.05
July 18	40.29

314938107371401. Local number, 28S.08W.36.411.
LOCATION.--Lat 31°49'38", long 107°37'14", Hydrologic Unit 13030202. Owner: M. R. Hemley.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 250 ft, cased to 250 ft.
DATUM.--Altitude of land-surface datum is 4,008 ft. Measuring point: Top of casing, 1.85 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 8.18 ft below land-surface datum, Aug. 2, 1983; lowest measured, 27.85 ft below land-surface datum, Jan. 14, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 6	9.97
July 17	9.50

MORA COUNTY
Watrous Area

354840104590301. Local number, 18N.18E.01.333.
LOCATION.--Lat 35°48'40", long 104°59'03", Hydrologic Unit 11080004. Owner: Sellman Bros.
AQUIFER:--Alluvium.
WELL CHARACTERSTICS.--Drilled irrigation water-table well, diameter 14 in, depth 100 ft.
DATUM.--Altitude of land-surface datum is 6,420 ft. Measuring point: Hole in southeast corner of pump base, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--1976 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 2.21 ft below land-surface datum, July 17, 1984; lowest measured, 6.74 ft below land-surface datum, Feb. 14, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 14	6.74
July 17	2.21

OTERO COUNTY
Tularosa-Alamogordo Area

330324106011201. Local number, 14S.10E.31.144.
LOCATION.--Lat 33°03'24", long 106°01'12", Hydrologic Unit 13050003. Owner: Luther Watson.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, depth 230 ft, diameter 17 in, casing 0-130 ft.
DATUM.--Altitude of land-surface datum is 4,450 ft. Measuring point: Top edge of 1 in hole in pump base, 0.70 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.75 ft below land-surface datum, Apr. 8, 1952; lowest measured, 134.21 ft below land-surface datum, Aug. 3, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
MAR. 7	127.45
July 26	114.29

324853105582501. Local number, 17S.09E.24.343.
LOCATION.--Lat 32°48'53", long 105°58'25", Hydrologic Unit 13050003. Owner: U.S. Air Force.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 10 in, depth 236 ft, cased to 236 ft.
DATUM.--Altitude of land-surface datum is 4,144 ft. Measuring point: Top of 1 1/2 in pipe, 2.10 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.42 ft below land-surface datum, Apr. 6, 1960; lowest measured, 82.18 ft below land-surface datum, Sept. 22, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
MAR. 7	78.93
July 26	81.56

Crow Flats Basin
(Salt Basin)

320650105034801. Local number, 26S.18E.21.331.
LOCATION.--Lat 32°06'50", long 105°03'48", Hydrologic Unit 13050004. Owner: Frank Gentry.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in, depth 544 ft.
DATUM.--Altitude of land-surface datum is 4,000 ft. Measuring point: Top of casing, 2.50 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft below land-surface datum, Jan. 8, 1973; lowest measured, 82.94 ft below land-surface datum, Aug. 17, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	60.94
Aug. 20	65.55

QUAY COUNTY
House Area

344350103553001. Local number, 06N.28E.24.233.
LOCATION.--Lat 34°43'50", long 103°55'30", Hydrologic Unit 13060004. Owner: G. B. Irvin.
AQUIFER.--Ogallala formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, reported depth 131 ft, cased to 131 ft.
DATUM. --Altitude of land-surface datum is 4,790 ft. Measuring point: Top of 2 in opening in concrete base, 1.21 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.97 ft below land-surface datum, Mar. 27, 1944; lowest measured, 113.50 ft below land-surface datum, Aug. 20, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 16	101.38
Aug. 30	106.28

ROOSEVELT COUNTY

Portales Valley

341852103090701. Local number, 01N.36E.21.213.

LOCATION.--Lat 34°18'52", long 103°09'07", Hydrologic Unit 12050001. Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled irrigation well, casing data and depth unknown.

DATUM.--Altitude of land-surface datum is 4,141 ft. Measuring point: 1 in hole in west side of pump base, 1.45 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1963 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 141.57 ft below land-surface datum, Jan. 30, 1963; lowest measured, 203.03 ft below land-surface datum, Aug. 29, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 19	200.79
Aug. 29	203.03

340740103145501. Local number, 02S.35E.23.111.

LOCATION.--Lat 34°07'40", long 103°14'55", Hydrologic Unit 12050001. Owner: P. O. Dozier.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter, depth and casing information not available.

DATUM.--Altitude of land-surface datum is 3,963 ft. Measuring point: Top of concrete pump base, 1.50 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft below land-surface datum, Mar. 27, 1951; lowest measured, 49.26 ft below land-surface datum, Aug. 11, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 17	46.10
Aug. 29	46.65

Causey-Lingo Area

335655103032001. Local number, 06S.38E.21.233.

LOCATION.--Lat 33°56'55", long 103°03'20", Hydrologic Unit 12050001. Owner: C. C. Harvey.

AQUIFER.--Undifferentiated Cretaceous rocks.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 140 ft, cased to 140 ft, casing slotted 100-140 ft.

DATUM.--Altitude of land-surface datum is 3,927 ft. Measuring point: Top of 1 in hole in north side of pump, 2.10 ft above land-surface datum.

PERIOD OF RECORD.--Jan. 1956 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.18 ft below land-surface datum, Jan. 13, 1956; lowest measured, 115.21 ft below land-surface datum, Aug. 11, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 16	97.26
Aug. 29	97.67

SANTA FE COUNTY

Estancia Valley

350525106025001. Local number, 10N.08E.13.233.

LOCATION.--Lat 35°05'25", long 106°02'50", Hydrologic Unit 13050001. Owner: W. R. Irby.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter unknown, reported depth 513 ft, casing information not available.

DATUM.--Altitude of land-surface datum is 6,265 ft. Measuring point: Lower inside edge of hole in south side of casing, 0.45 ft above land-surface datum.

PERIOD OF RECORD.--Feb. 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft below land-surface datum, Feb. 22, 1950; lowest measured, 150.00 ft below land-surface datum, July 17, 1981.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	135.07
Aug. 13	pumping

SANTA FE COUNTY
Estancia Valley

350340106005001. Local number, 10N.09E.29.130.
LOCATION.--Lat 35°03'40", long 106°00'50", Hydrologic Unit 13050001. Owner: Glen Terry.
AQUIFER.--Glorieta Sandstone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in, reported depth 200 ft, cased to 140 ft.
DATUM.--Altitude of land-surface datum is 6,240 ft. Measuring point: Top edge of 3 in pipe on north side of pump, 1.30 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.96 ft below land-surface datum, Feb. 16, 1951; lowest measured, 120.20 ft below land-surface datum, Aug. 13, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	105.86
Aug. 13	120.20

Santa Fe Area

353810106025501. Local number, 16N.08E.12.131.
LOCATION.--Lat 35°38'10", long 106°02'55", Hydrologic Unit 13020201. Owner: Santa Fe Country Club.
AQUIFER.--Ancha Formation(?) and Tesuque Formation (?).
WELL CHARACTERISTICS.--Drilled unused well, diameter 5 in, depth 400 ft.
DATUM.--Altitude of land-surface datum is 6,420 ft. Measuring point: Top of 3/8 in hole in cover plate, 0.20 ft above land-surface datum.
PERIOD OF RECORD.--Aug. 1951, Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 247.93 ft below land-surface datum, Jan. 22, 1979; lowest measured, 272.06 ft below land-surface datum, Aug. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 24	251.69
Sept. 12	251.52

SIERRA COUNTY
Hot Springs Area

331002107150001. Local number, 13S.04W.21.213.
LOCATION.--Lat 33°10'02", long 107°15'00", Hydrologic Unit 13030101. Owner: Unknown.
AQUIFER.--Alluvium Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation well, diameter 13 in, depth unknown.
DATUM.--Altitude of land-surface datum is 4,355 ft. Measuring point: 1 1/2 in hole in top of discharge pipe, 3.0 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 25, 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.06 ft below land-surface datum, Mar. 1, 1984; lowest measured, 65.56 ft below land-surface datum, Feb. 25, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 1	61.06
July 27	61.21

325550107184001. Local number, 15S.05W.24.312.
LOCATION.--Lat 32°55'50", long 107°18'40", Hydrologic Unit 13030101. Owner: William M. Dawson.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled used irrigation water-table well, diameter 16 in, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,279 ft. Measuring point: Top of casing, 1.20 ft above land-surface datum.
PERIOD OF RECORD.--May 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.13 ft below land-surface datum, Sept. 11, 1975; lowest, 41.97 ft below land-surface datum, Feb. 29, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 29	41.97
July 27	41.10

SIERRA COUNTY
Rincon Valley

325350107175501. Local number, 16S.05W.25.211.
LOCATION.--Lat 32°53'35", long 107°17'55", Hydrologic Unit 13030102. Owner: U.S. Government.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in, depth 32 ft, cased to 32 ft.
DATUM.--Altitude of land-surface datum is 4,050 ft. Measuring point: Top of casing, 3.00 ft above land-surface datum.
PERIOD OF RECORD.--Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.03 ft below land-surface datum, Jan. 8, 1975; lowest measured, 27.78 ft below land-surface datum, Jan. 6, 1958.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Feb. 15	21.84
July 27	22.04

TAOS COUNTY
Sunshine Valley

365036105355301. Local number, 30N.13E.18.1121.
LOCATION.--Lat 36°50'36", long 105°35'53", Hydrologic Unit 13020101. Owner: Unknown.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in, depth 500 ft.
DATUM.--Altitude of land-surface datum is 7,600 ft. Measuring point: Top of casing, 2.00 ft above land-surface datum.
PERIOD OF RECORD.--Sept. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.00 ft below land-surface datum, Aug. 14, 1975; lowest measured, 77.33 ft below land-surface datum, Aug. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 15	73.81
July 19	73.16

365410105354501. Local number, 02S.73W.05.222.
LOCATION.--Lat 36°54'10", long 105°35'45", Hydrologic Unit 13020101. Owner: Unknown.
AQUIFER.--Santa Fe Group.
WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 6 in, depth unknown.
DATUM.--Altitude of land-surface datum is 7,587 ft. Measuring point: 1 in hole in plate over casing, 0.10 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 76.65 ft below land-surface datum, July 19, 1984; lowest measured, 84.78 ft below land-surface datum, Jan. 27, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 15	80.95
July 19	76.65

TORRANCE COUNTY
Estancia Valley

343458106042001. Local number, 04N.08E.11.433.
LOCATION.--Lat 34°34'58", long 106°04'20", Hydrologic Unit 13050001. Owner: F. D. Breedlove.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in, reported depth 180 ft, cased to 160 ft.
DATUM.--Altitude of land-surface datum is 6,148 ft. Measuring point: Top of casing at high point on northwest side of well, 0.70 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.93 ft below land-surface datum, May 2, 1951; lowest measured, 121.08 ft below land-surface datum, Aug. 8, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	111.65
Aug. 13	119.97 c

c Nearby well pumping

TORRANCE COUNTY
Estancia Valley

344016106064701. Local number, 05N.08E.08.424.
LOCATION.--Lat 34°40'16", long 106°06'47", Hydrologic Unit 13050001. Owner: A.T. Austin.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, reported depth 204 ft, cased to 98 ft.
DATUM.--Altitude of land-surface datum is 6,214 ft. Measuring point: Top of casing, 0.80 ft above land-surface datum.
PERIOD OF RECORD.--Jan. 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.03 ft below land-surface datum, Mar. 23, 1948; lowest measured, 129.40 ft below land-surface datum, Aug. 30, 1980.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	125.04
Aug. 13	126.03

344234106074901. Local number, 06N.08E.32.212.
LOCATION.--Lat 34°42'34", long 106°07'49", Hydrologic Unit 13050001. Owner: Revis Strong.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in, reported depth 209 ft, cased to 84 ft.
DATUM.--Altitude of land-surface datum is 6,165 ft. Measuring point: Top of 1 1/2 in hole in pump base, 0.04 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft below land-surface datum, Feb. 18, 1947; lowest measured, 80.54 ft below land-surface datum, Aug. 13, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	75.82
Aug. 13	80.54

344622105575501. Local number, 06N.09E.11.211.
LOCATION.--Lat 34°46'22", long 105°57'55", Hydrologic Unit 13050001. Owner: R. O. Brown.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in, reported depth 148 ft, cased to 140 ft.
DATUM.--Altitude of land-surface datum is 6,086 ft. Measuring point: Top of casing, 0.75 ft above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.80 ft below land-surface datum, Feb. 8, 1950; lowest measured, 28.25 ft below land-surface datum, July 19, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	17.08
Aug. 13	pumping

344937106092201. Local number, 07N.07E.13.4312.
LOCATION.--Lat 34°49'37", long 106°09'22", Hydrologic Unit 13050001. Owner: Woodrow Clements.
AQUIFER.--Madera Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 7 in, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 6,500 ft. Measuring point: Top of casing, level with concrete slab, 0.2 ft above land-surface datum.
REMARKS.--Old CO_2 well.
PERIOD OF RECORD.--Feb. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.01 ft below land-surface datum, Jan. 19, 1979; lowest measured, 111.40 ft below land-surface datum, Jan. 10, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Jan. 10	111.40
Aug. 13	110.38

UNION COUNTY
Clayton Area

360940103083501. Local number, 19N.36E.23.244.
LOCATION.--Lat 36°09'40", long 103°08'35", Hydrologic Unit 11090102. Owner: Stevens.
AQUIFER.--Dakota and Purgatoire Sandstone.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 14 in, depth 206 ft.
DATUM.--Altitude of land-surface datum is 4,326 ft. Measuring point: Top of casing, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft below land-surface datum, Mar. 17, 1971; lowest measured, 158.42c ft below land-surface datum, July 18, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 14	147.52
July 18	158.42 c

361910103170501. Local number, 24N.36E.17.244.
LOCATION.--Lat 36°19'10", long 103°17'05", Hydrologic Unit 11090103. Owner: Glen Burrows.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 10 in, depth 231 ft.
DATUM.--Altitude of land-surface datum is 4,707 ft. Measuring point: Top of casing, 1.30 ft above land-surface datum.
PERIOD OF RECORD.--May 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.99 ft below land-surface datum, Jan. 8, 1972; lowest measured, 90.83 ft below land-surface datum, July 18, 1984.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 14	90.47
July 18	90.83

363005103081001. Local number, 26N.36E.07.142.
LOCATION.--Lat 36°30'05", long 103°08'10", Hydrologic Unit 11090103. Owner: J. E. Armes.
AQUIFER.--Dakota, Purgatoire, and Morrison Sandstone.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in, depth 770 ft.
DATUM.--Altitude of land-surface datum is 4,980 ft. Measuring point: Top of 16 in casing level with concrete base, 1.00 ft above land-surface datum.
PERIOD OF RECORD.--Mar. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 127.41 ft below land-surface datum, Mar. 17, 1971; lowest measured, 252.90 ft below land-surface datum, Aug. 24, 1983.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 14	175.87
July 18	167.42

Capulin Area

364430103595501. Local number, 29N.28E.18.341.
LOCATION.--Lat 36°44'30", long 103°59'55", Hydrologic Unit 11040001, 300 ft north of U.S. Highway 64-87 at Capulin. Owner: City of Raton.
AQUIFER.--Cinders.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in, depth 78 ft.
DATUM.--Altitude of land-surface datum is 6,821.2 ft. Measuring point: Edge of 2 in hole in west side of steel plate, at land-surface datum.
PERIOD OF RECORD.--July 1951, Feb. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.01 ft below land-surface datum, Feb. 8, 1974; lowest measured, 36.23 ft below land-surface datum, Aug. 24, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DATE	WATER LEVEL
Mar. 14	34.35
July 18	36.07

c Nearby well pumping

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EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER, M-MIDDLE, L-LOWER: 000 IRSV-UNKNOWN, Intrusive Rocks; 110 AVMB-Cenozoic, Quaternary, Alluvium, Bolson Deposits and other Surface Deposits; 110 BLSN-Cenozoic, Quaternary, Bolson Fill; 110 PTOD-Cenozoic, Quaternary, Pediment, Terrace, and other Deposits of Gravel, Sand and Caliche; 112 SNTF-Cenozoic, Quaternary, Pleistocene, Santa Fe Group; 210 MNCS-Mesozoic, Cretaceous, Mancos Shale; 211 MENF-Mesozoic, Upper Cretaceous, Menefee Formation; 231 CHNL-Mesozoic, Upper Triassic, Chinle Formation; 313 SADG-Paleozoic, Permian, Guadalupian, San Andres Limestone and Glorieta Sandstone; 313 SADR-Palezoic, Permian, Guadalupian, San Andres Limestone of Manzano Group; 318 CPDR-Paleozoic, Lower Permian, Leonardian, Chupadera Formation; 325 MDER-Paleozoic, Middle Pennsylvanian, Des Moinesian, Madera Limestone; 400 PCMB-Paleozoic, Cambrian, Precambrian, Precambrian Erathem.

REMARKS.-- Ground Water sites in this table are segregated by county which appear alphabetically. The sites are then listed in ascending local identifiers.

BERNALILLO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)
ALBUQ.GRANT 350639106380	350639106380501	001	GW	84-08-29	1315	112SNTF	--	--	110
ALBUQ.GRANT 350647106411	350647106411001	001	GW	84-08-17	1020	112SNTF	--	--	50.00
ALBUQ.GRANT 350702106393	350702106393701	001	GW	84-08-27	1010	112SNTF	--	--	52.00
ALBUQ.GRANT 350703106390	350703106390701	001	GW	84-08-22	1030	112SNTF	--	--	95.00
ALBUQ.GRANT 350705106381	350705106381701	001	GW	84-08-08	1400	112SNTF	--	--	93.00
ALBUQ.GRANT 350706106401	350706106401301	001	GW	84-08-22	0830	112SNTF	--	--	50.00
ALBUQ.GRANT 350718106403	350718106403601	001	GW	84-08-21	1100	112SNTF	--	--	90.00
ALBUQ.GRANT 350734106400	350734106400401	001	GW	84-08-10	0945	112SNTF	--	--	60.00
ALBUQ.GRANT 350743106410	350743106410101	001	GW	84-08-14	1230	112SNTF	--	--	44.00
ELENA GALLEGOS GRANT 350	350815106372201	001	GW	84-08-09	0930	112SNTF	--	--	159
ELENA GALLEGOS GRANT 350	350858106383501	001	GW	84-08-10	1315	112SNTF	--	--	60.00
ELENA GALLEGOS GRANT 350	350825106401701	001	GW	84-08-13	1400	112SNTF	--	--	31.00
ELENA GALLEGOS GRANT 350	350907106394501	001	GW	84-08-14	1030	112SNTF	--	--	50.00
ELENA GALLEGOS GRANT 350	350859106390601	001	GW	84-08-17	1330	112SNTF	--	--	137
ELENA GALLEGOS GRANT 350	350908106382001	001	GW	84-08-20	1115	112SNTF	--	--	120
ELENA GALLEGOS GRANT 350	350828106382001	001	GW	84-08-20	1430	112SNTF	--	--	89.00
ELENA GALLEGOS GRANT 350	350902106370201	001	GW	84-08-21	1400	112SNTF	--	--	208
ELENA GALLEGOS GRANT 350	350819106384001	001	GW	84-08-22	1510	112SNTF	--	--	99.00
ELENA GALLEGOS GRANT 350	350807106403301	001	GW	84-08-22	1715	112SNTF	--	--	60.00
ELENA GALLEGOS GRANT 350	350928106380501	001	GW	84-08-27	1145	112SNTF	--	--	140
08N.07E.29.324A E.A. DOW	345319106135101	001	GW	84-08-09	1330	325MDER	18.80	--	68.00
09N.06E.29.142 ALLISON	345842106192301	001	GW	84-09-27	0945	325MDER	289.50	--	440
10N.05E.02.123A THOMPSON	350727106223204	001	GW	84-08-01	1300	231CHNL	57.60	--	195
10N.05E.12.122 CARNES	350646106212701	001	GW	84-09-25	1130	210MNCS	129.70	--	--
10N.05E.14.232 FIRE ST10	350545106220901	001	GW	84-08-08	1215	110AVMB	39.40	--	125
10N.05E.19.324	350423106263301	001	GW	84-09-27	1200	110AVMB	47.30	--	146
10N.05E.30.323 MARTINEZ	350332106264002	001	GW	84-08-09	1100	110AVMB	--	--	105
10N.06E.26.132 D.M. BUSH	350356106162901	001	GW	84-09-24	1345	325MDER	296.05	--	329
11N.06E.18.433 S ANT.SCH	351014106202501	001	GW	84-06-08	1345	110AVMB	81.40	--	200

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)
ALBUQ.GRANT 350639106380	84-08-29	110	90	--	--	870	943	7.2	7.3	32.5
ALBUQ.GRANT 350647106411	84-08-17	--	--	--	--	350	382	7.9	8.0	27.0
ALBUQ.GRANT 350702106393	84-08-27	52	42	--	--	790	812	7.3	7.5	22.5
ALBUQ.GRANT 350703106390	84-08-22	92	85	--	--	1480	1560	7.1	7.3	23.0
ALBUQ.GRANT 350705106381	84-08-08	93	87	--	--	1620	1690	7.2	7.4	27.5
ALBUQ.GRANT 350706106401	84-08-22	50	35	--	--	900	948	7.4	7.6	22.5
ALBUQ.GRANT 350718106403	84-08-21	88	82	--	--	530	599	7.8	7.8	27.5
ALBUQ.GRANT 350734106400	84-08-10	60	55	--	--	790	806	7.6	7.9	27.5
ALBUQ.GRANT 350743106410	84-08-14	44	34	--	--	420	431	7.8	7.8	26.0
ELENA GALLEGOS GRANT 350	84-08-09	156	146	--	--	590	565	7.9	8.0	20.5
ELENA GALLEGOS GRANT 350	84-08-10	47	37	--	--	1490	1570	7.4	7.4	16.0
ELENA GALLEGOS GRANT 350	84-08-13	--	--	--	--	487	501	7.8	7.8	29.5
ELENA GALLEGOS GRANT 350	84-08-14	50	43	--	--	700	736	7.4	7.5	23.0
ELENA GALLEGOS GRANT 350	84-08-17	--	--	--	--	570	623	7.6	7.7	29.0
ELENA GALLEGOS GRANT 350	84-08-20	120	115	--	--	760	837	7.4	7.6	24.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BERNALILLO COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH TO BOTTOM OF SAMPLE INTERVAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTERVAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPECIFIC CONDUCTANCE (UMHOS) (00095)	SPECIFIC CONDUCTANCE LAB (UMHOS) (90095)	PH (STANDARD UNITS) (00400)	PH LAB (STANDARD UNITS) (00403)	TEMPERATURE, AIR (DEG C) (00020)
ELENA GALLEGOS GRANT 350	84-08-20	85	79	--	--	610	669	7.7	7.8	29.5
ELENA GALLEGOS GRANT 350	84-08-21	208	193	--	--	1100	1210	7.5	7.5	29.5
ELENA GALLEGOS GRANT 350	84-08-22	95	89	--	--	950	998	7.4	7.6	26.5
ELENA GALLEGOS GRANT 350	84-08-22	--	--	--	--	630	631	7.4	7.7	21.0
ELENA GALLEGOS GRANT 350	84-08-27	140	134	--	--	380	404	7.8	8.0	29.0
08N.07E.29.324A E.A. DOW	84-08-09	--	--	6790.00	--	800	777	8.4	8.3	19.0
09N.06E.29.142 ALLISON	84-09-27	--	--	7520.00	--	900	882	7.0	7.2	18.0
10N.05E.02.123A THOMPSON	84-08-01	--	--	6805.00	195	600	582	7.3	7.7	35.5
10N.05E.12.122 CARNES	84-09-25	--	--	6645.00	--	2200	2140	7.3	7.5	16.0
10N.05E.14.232 FIRE ST10	84-08-08	--	--	6430.00	--	2200	2500	7.4	7.6	21.0
10N.05E.19.324	84-09-27	--	--	6275.00	--	600	577	7.4	7.7	18.0
10N.05E.30.323 MARTINEZ	84-08-09	--	--	5870.00	105	1000	1080	6.9	7.0	22.0
10N.06E.26.132 D.M. BUSH	84-09-24	--	--	7030.00	--	1100	1100	8.1	8.1	28.5
11N.06E.18.433 S ANT.SCH	84-08-08	--	--	6790.00	200	800	880	7.4	7.7	24.0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE IT-FLD (MG/L AS HCO3) (99440)
ALBUQ.GRANT 350639106380	84-08-29	17.5	4.7	300	97	15	79	2	7.3	350
ALBUQ.GRANT 350647106411	84-08-17	13.0	.2	130	44	5.9	25	1	3.7	130
ALBUQ.GRANT 350702106393	84-08-27	16.0	.2	320	99	17	43	1	9.5	270
ALBUQ.GRANT 350703106390	84-08-22	16.5	.2	760	220	50	51	.8	14	300
ALBUQ.GRANT 350705106381	84-08-08	18.0	.0	800	250	42	91	1	11	360
ALBUQ.GRANT 350706106401	84-08-22	16.0	.1	370	120	18	68	2	8.9	350
ALBUQ.GRANT 350718106403	84-08-21	17.5	.3	230	71	12	30	.9	7.6	220
ALBUQ.GRANT 350734106400	84-08-10	17.0	.2	250	80	13	80	2	8.1	360
ALBUQ.GRANT 350743106410	84-08-14	15.0	.1	150	50	6.8	28	1	4.2	150
ELENA GALLEGOS GRANT 350	84-08-09	17.5	.2	200	63	11	23	.7	4.3	93
ELENA GALLEGOS GRANT 350	84-08-10	16.0	4.5	680	220	31	110	2	8.6	470
ELENA GALLEGOS GRANT 350	84-08-13	16.0	.2	160	51	7.2	41	1	3.5	170
ELENA GALLEGOS GRANT 350	84-08-14	15.0	.1	300	100	13	42	1	5.4	330
ELENA GALLEGOS GRANT 350	84-08-17	16.0	.4	260	73	19	25	.7	8.2	220
ELENA GALLEGOS GRANT 350	84-08-20	17.0	.2	390	110	27	31	.7	7.1	340
ELENA GALLEGOS GRANT 350	84-08-20	17.0	.2	270	81	16	27	.7	5.5	210
ELENA GALLEGOS GRANT 350	84-08-21	17.0	.2	560	180	27	59	1	4.9	290
ELENA GALLEGOS GRANT 350	84-08-22	16.5	.2	240	58	22	99	3	9.5	360
ELENA GALLEGOS GRANT 350	84-08-22	14.0	.2	230	71	13	44	1	5.7	230
ELENA GALLEGOS GRANT 350	84-08-27	18.0	.0	150	43	9.6	17	.6	4.2	110
08N.07E.29.324A E.A. DOW	84-08-09	20.5	--	26	7.1	2.1	170	15	3.4	450
09N.06E.29.142 ALLISON	84-09-27	14.0	--	430	130	26	22	.5	2.7	410
10N.05E.02.123A THOMPSON	84-08-01	15.0	--	250	77	15	28	.8	.90	330
10N.05E.12.122 CARNES	84-09-25	9.5	--	470	82	64	340	7	4.8	910
10N.05E.14.232 FIRE ST10	84-08-08	16.5	--	980	240	93	200	3	2.3	390
10N.05E.19.324	84-09-27	17.0	--	250	71	18	23	.7	3.9	240
10N.05E.30.323 MARTINEZ	84-08-09	18.0	--	510	150	33	62	1	2.7	500
10N.06E.26.132 D.M. BUSH	84-09-24	11.0	--	120	22	16	210	9	5.3	400
11N.06E.18.433 S ANT.SCH	84-08-08	20.5	--	410	120	26	32	.7	1.4	300

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CARBONATE IT-FLD (MG/L AS CO3) (99445)	ALKALINITY FIELD (MG/L AS CACO3) (00410)	ALKALINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
ALBUQ.GRANT 350639106380	84-08-29	.000	280	288	--	190	19	.10	49	630
ALBUQ.GRANT 350647106411	84-08-17	.000	110	115	--	65	9.4	.40	--	--
ALBUQ.GRANT 350702106393	84-08-27	.000	220	229	.2	200	15	.50	47	570
ALBUQ.GRANT 350703106390	84-08-22	.000	240	247	--	560	69	.10	59	1200
ALBUQ.GRANT 350705106381	84-08-08	.000	300	295	--	630	53	.20	51	1300
ALBUQ.GRANT 350706106401	84-08-22	.000	290	289	--	210	22	.40	40	650
ALBUQ.GRANT 350718106403	84-08-21	.000	180	179	--	110	11	.30	57	410
ALBUQ.GRANT 350734106400	84-08-10	.000	290	295	--	130	13	.50	34	540
ALBUQ.GRANT 350743106410	84-08-14	.000	120	123	--	73	8.1	.40	34	280
ELENA GALLEGOS GRANT 350	84-08-09	.000	76	77	--	110	55	.30	35	350

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BERNALILLO COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY FIELD (MG/L AS CACO3) (00410)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
ELENA GALLEGOS GRANT 350	84-08-10	.000	380	383	--	460	36	.40	39	1100
ELENA GALLEGOS GRANT 350	84-08-13	.000	140	145	--	68	26	.60	27	310
ELENA GALLEGOS GRANT 350	84-08-14	.000	280	275	--	110	7.2	.60	35	480
ELENA GALLEGOS GRANT 350	84-08-17	.000	180	180	--	110	25	.30	51	420
ELENA GALLEGOS GRANT 350	84-08-20	.000	280	281	--	150	25	.10	37	550
ELENA GALLEGOS GRANT 350	84-08-20	.000	170	167	--	86	62	.20	47	430
ELENA GALLEGOS GRANT 350	84-08-21	.000	240	237	--	410	39	.20	31	890
ELENA GALLEGOS GRANT 350	84-08-22	.000	290	280	--	220	27	.20	48	660
ELENA GALLEGOS GRANT 350	84-08-22	.000	180	190	--	110	20	.50	37	420
ELENA GALLEGOS GRANT 350	84-08-27	.000	90	94	--	70	22	.30	29	250
08N.07E.29.324A E.A. DOW	84-08-09	16	390	348	--	42	11	3.7	8.1	500
09N.06E.29.142 ALLISON	84-09-27	.000	340	334	--	63	58	.50	14	520
10N.05E.02.123A THOMPSON	84-08-01	.000	270	268	--	27	15	.30	20	350
10N.05E.12.122 CARNES	84-09-25	.000	750	668	--	400	110	.90	12	1500
10N.05E.14.232 FIRE ST10	84-08-08	.000	320	318	--	630	300	.40	21	1700
10N.05E.19.324	84-09-27	.000	200	207	--	80	11	2.1	18	350
10N.05E.30.323 MARTINEZ	84-08-09	.000	410	443	--	120	28	1.8	30	670
10N.06E.26.132 D.M. BUSH	84-09-24	9.0	340	446	--	88	49	3.0	9.3	620
11N.06E.18.433 S ANT.SCH	84-08-08	.000	240	247	--	28	89	.30	25	470

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
ALBUQ.GRANT 350639106380	84-08-29	--	<.010	1.0	<.010	--	.020	--	3	30
ALBUQ.GRANT 350647106411	84-08-17	--	<.010	<.10	.080	.22	.030	--	2	81
ALBUQ.GRANT 350702106393	84-08-27	--	<.010	<.10	.250	-.05	<.010	--	5	46
ALBUQ.GRANT 350703106390	84-08-22	--	<.010	<.10	.040	.26	<.010	--	2	73
ALBUQ.GRANT 350705106381	84-08-08	--	<.010	<.10	.050	.15	.010	--	1	33
ALBUQ.GRANT 350706106401	84-08-22	--	<.010	<.10	.180	.22	.010	--	3	99
ALBUQ.GRANT 350718106403	84-08-21	--	<.010	<.10	.030	.37	.020	--	4	190
ALBUQ.GRANT 350734106400	84-08-10	--	<.010	<.10	.120	.28	<.010	--	4	86
ALBUQ.GRANT 350743106410	84-08-14	--	<.010	<.10	.020	--	.030	--	3	130
ELENA GALLEGOS GRANT 350	84-08-09	--	<.010	.45	<.010	--	<.010	--	3	120
ELENA GALLEGOS GRANT 350	84-08-10	--	<.010	<.10	.280	.42	<.010	--	3	73
ELENA GALLEGOS GRANT 350	84-08-13	--	<.010	<.10	.100	.10	.020	--	3	71
ELENA GALLEGOS GRANT 350	84-08-14	--	<.010	<.10	.140	.06	.010	--	4	190
ELENA GALLEGOS GRANT 350	84-08-17	--	<.010	<.10	<.010	--	.010	--	2	100
ELENA GALLEGOS GRANT 350	84-08-20	--	<.010	<.10	<.010	--	.010	--	<1	110
ELENA GALLEGOS GRANT 350	84-08-20	--	<.010	<.10	.010	.09	<.010	--	2	300
ELENA GALLEGOS GRANT 350	84-08-21	--	<.010	<.10	.020	.28	<.010	--	2	66
ELENA GALLEGOS GRANT 350	84-08-22	--	<.010	<.10	<.010	--	.010	--	2	68
ELENA GALLEGOS GRANT 350	84-08-22	--	<.010	<.10	.080	.22	.030	--	3	91
ELENA GALLEGOS GRANT 350	84-08-27	--	<.010	<.10	<.010	--	<.010	--	2	180
08N.07E.29.324A E.A. DOW	84-08-09	--	<.010	<.10	.010	.49	.030	.80	19	46
09N.06E.29.142 ALLISON	84-09-27	--	<.010	2.6	.080	.52	<.010	2.1	<1	160
10N.05E.02.123A THOMPSON	84-08-01	--	<.010	<.10	.010	.19	<.010	.40	1	180
10N.05E.12.122 CARNES	84-09-25	.09	.010	.10	.730	.17	.010	3.5	1	100
10N.05E.14.232 FIRE ST10	84-08-08	--	<.010	4.6	.060	.74	.020	.20	<1	<100
10N.05E.19.324	84-09-27	--	<.010	1.6	.500	.10	<.010	2.0	<1	42
10N.05E.30.323 MARTINEZ	84-08-09	--	<.010	3.1	.020	.58	.010	1.1	<1	50
10N.06E.26.132 D.M. BUSH	84-09-24	--	<.010	<.10	.040	.26	<.010	2.7	<1	42
11N.06E.18.433 S ANT.SCH	84-08-08	--	<.010	7.5	.020	.48	<.010	1.2	<1	260

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

BERNALILLO COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
ALBUQ.GRANT 350639106380	84-08-29	<1	<10	<1	8	5	1
ALBUQ.GRANT 350647106411	84-08-17	<1	<10	<1	170	1	910
ALBUQ.GRANT 350702106393	84-08-27	<1	<10	<1	480	4	2300
ALBUQ.GRANT 350703106390	84-08-22	<1	<10	<1	54	<1	380
ALBUQ.GRANT 350705106381	84-08-08	<1	<10	2	10	2	26
ALBUQ.GRANT 350706106401	84-08-22	<1	<10	<1	960	2	2800
ALBUQ.GRANT 350718106403	84-08-21	<1	<10	<1	47	<1	1400
ALBUQ.GRANT 350734106400	84-08-10	<1	<10	2	340	2	1600
ALBUQ.GRANT 350743106410	84-08-14	<1	<10	1	110	2	690
ELENA GALLEGOS GRANT 350	84-08-09	<1	<10	2	0	4	3
ELENA GALLEGOS GRANT 350	84-08-10	<1	<10	1	730	<1	3400
ELENA GALLEGOS GRANT 350	84-08-13	<1	<10	1	300	3	1100
ELENA GALLEGOS GRANT 350	84-08-14	<1	<10	<1	740	<1	2400
ELENA GALLEGOS GRANT 350	84-08-17	<1	10	<1	36	1	74
ELENA GALLEGOS GRANT 350	84-08-20	<1	<10	2	120	<1	73
ELENA GALLEGOS GRANT 350	84-08-20	<1	<10	<1	17	1	90
ELENA GALLEGOS GRANT 350	84-08-21	<1	<10	<1	39	<1	66
ELENA GALLEGOS GRANT 350	84-08-22	<1	<10	<1	14	<1	51
ELENA GALLEGOS GRANT 350	84-08-22	<1	<10	<1	230	<1	880
ELENA GALLEGOS GRANT 350	84-08-27	<1	10	<1	81	6	36
08N.07E.29.324A E.A. DOW	84-08-09	<1	<10	2	51	<1	5
09N.06E.29.142 ALLISON	84-09-27	<1	<10	7	7	1	<1
10N.05E.02.123A THOMPSON	84-08-01	<1	<10	1	6	<1	13
10N.05E.12.122 CARNES	84-09-25	1	<10	<1	430	1	100
10N.05E.14.232 FIRE ST10	84-08-08	<1	<10	20	40	4	10
10N.05E.19.324	84-09-27	<1	<10	9	6	<1	1
10N.05E.30.323 MARTINEZ	84-08-09	<1	<10	3	40	<1	390
10N.06E.26.132 D.M. BUSH	84-09-24	<1	<10	3	3	3	6
11N.06E.18.433 S ANT.SCH	84-08-08	<1	<10	4	<3	<1	2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
ALBUQ.GRANT 350639106380	84-08-29	<.1	2	<1	15
ALBUQ.GRANT 350647106411	84-08-17	<.1	<1	<1	8
ALBUQ.GRANT 350702106393	84-08-27	<.1	<1	<1	13
ALBUQ.GRANT 350703106390	84-08-22	<.1	<1	<1	100
ALBUQ.GRANT 350705106381	84-08-08	.3	<1	1	11
ALBUQ.GRANT 350706106401	84-08-22	<.1	<1	<1	3
ALBUQ.GRANT 350718106403	84-08-21	<.1	<1	<1	12
ALBUQ.GRANT 350734106400	84-08-10	.2	<1	<1	44
ALBUQ.GRANT 350743106410	84-08-14	<.1	<1	<1	6
ELENA GALLEGOS GRANT 350	84-08-09	.2	<1	<1	18
ELENA GALLEGOS GRANT 350	84-08-10	.3	<1	<1	12
ELENA GALLEGOS GRANT 350	84-08-13	.2	1	<1	15
ELENA GALLEGOS GRANT 350	84-08-14	.2	<1	<1	4
ELENA GALLEGOS GRANT 350	84-08-17	<.1	<1	<1	26
ELENA GALLEGOS GRANT 350	84-08-20	<.1	<1	<1	65
ELENA GALLEGOS GRANT 350	84-08-20	<.1	<1	<1	30
ELENA GALLEGOS GRANT 350	84-08-21	<.1	<1	<1	39
ELENA GALLEGOS GRANT 350	84-08-22	<.1	<1	<1	8
ELENA GALLEGOS GRANT 350	84-08-22	<.1	<1	<1	9
ELENA GALLEGOS GRANT 350	84-08-27	.2	<1	<1	6
08N.07E.29.324A E.A. DOW	84-08-09	<.1	<1	<1	59
09N.06E.29.142 ALLISON	84-09-27	<.1	7	<1	97
10N.05E.02.123A THOMPSON	84-08-01	.3	<1	<1	210
10N.05E.12.122 CARNES	84-09-25	.1	<1	<1	<10
10N.05E.14.232 FIRE ST10	84-08-08	.2	7	<1	850
10N.05E.19.324	84-09-27	<.1	3	<1	100
10N.05E.30.323 MARTINEZ	84-08-09	.2	4	<1	76
10N.06E.26.132 D.M. BUSH	84-09-24	<.1	<1	<1	75
11N.06E.18.433 S ANT.SCH	84-08-08	1.4	2	<1	300

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

CIBOLA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOT- TOM OF WATER- BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER- BEARING ZONE (FT) (72002)
04N.06W.12.111	343537107300001	006	GW	84-05-02	1500	--	--	--	--
09N.09W.28.1344 ACOMA TE	345850107475401	006	GW	84-09-21	1245	313SADR	262.00	2510	2450
10N.10W.03.423 OJO GALLO	350720107523201	006	SP	84-06-06	1100	313SADG	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (UMHOS) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS) (90095)	PH (STAND- ARD UNITS) (00400)
04N.06W.12.111	84-05-02	--	--	6070.00	--	--	2.0	4300	4180	7.0
09N.09W.28.1344 ACOMA TE	84-09-21	2510	--	6655.00	150	2510	500	1300	1280	6.9
10N.10W.03.423 OJO GALLO	84-06-06	--	--	6449.00	--	--	515	1490	1510	7.1

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)
04N.06W.12.111	84-05-02	7.5	--	1200	330	83	580	8	18	--
09N.09W.28.1344 ACOMA TE	84-09-21	7.3	41.5	510	140	39	88	2	7.4	390
10N.10W.03.423 OJO GALLO	84-06-06	8.0	14.5	570	150	47	130	2	6.6	400

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
04N.06W.12.111	84-05-02	--	377	1900	130	2.6	12	3300
09N.09W.28.1344 ACOMA TE	84-09-21	.000	324	290	72	.70	18	850
10N.10W.03.423 OJO GALLO	84-06-06	.000	321	400	110	.50	18	1100

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
04N.06W.12.111	84-05-02	--	1100	900	--
09N.09W.28.1344 ACOMA TE	84-09-21	<.10	280	720	10
10N.10W.03.423 OJO GALLO	84-06-06	.20	460	9	3

DONA ANA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAM- PLING DEPTH (FEET) (00003)	DEPTH TO TOP OF WATER- BEARING ZONE (FT) (72002)
15S.05E.29.423	325830106285501	013	GW	83-10-13	1230	110AVMB	--	--	--
19S.05E.17.331 MAR-1	323906106274301	013	GW	84-04-06	0945	110BLSN	--	--	--
		013	GW	84-08-17	--	110BLSN	--	--	--
19S.05E.17.334 MAR-2	323857106273201	013	GW	84-04-06	1010	110BLSN	--	--	--
19S.05E.22.343 LUCERO WE	323808106252301	013	GW	84-07-25	1520	110AVMB	172.87	210	--
21S.04E.14.114 HTA-3	322910106303601	013	GW	84-05-24	1230	400PCMB	55.30	--	--
21S.04E.23.233 HTA-1	322801106300801	013	GW	84-04-06	1100	000IRSV	--	--	--
		013	GW	84-08-17	--	000IRSV	--	--	--
21S.05E.16.132 SMR-1	322856106262701	013	GW	84-04-06	1145	110BLSN	--	--	--
		013	GW	84-08-17	--	110BLSN	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAM- PLING DEPTH (FEET) (00003)	DEPTH TO TOP OF WATER- BEARING ZONE (FT) (72002)
21S.05E.32.222 T-13	322635106264401	013	GW	84-07-25	0900	110BLSN	--	410	--
22S.04E.01.431 T-9	322503106290801	013	GW	84-07-25	1010	110BLSN	--	550	--
22S.04E.11.224 T-8	322434106295001	013	GW	84-07-25	1100	110BLSN	--	610	--
		013	GW	84-07-25	1120	110BLSN	--	915	--
22S.04E.12.214 SW-20	322446106290801	013	GW	83-10-13	--	110BLSN	--	--	--
		013	GW	83-11-04	0900	110BLSN	--	--	--
		013	GW	83-12-02	1030	110BLSN	--	--	--
		013	GW	84-01-04	0930	110BLSN	--	--	--
		013	GW	84-02-02	0815	110BLSN	--	--	--
		013	GW	84-03-01	0820	110BLSN	--	--	--
		013	GW	84-04-05	0915	110BLSN	--	--	--
		013	GW	84-05-03	0830	110BLSN	--	--	--
		013	GW	84-06-05	0825	110BLSN	--	--	--
		013	GW	84-07-09	--	110BLSN	--	--	--
22S.04E.12.414 SW-19	322424106290301	013	GW	83-10-13	--	110BLSN	--	--	--
		013	GW	83-11-04	0830	110BLSN	--	--	--
		013	GW	83-12-02	1045	110BLSN	--	--	--
		013	GW	84-01-04	0945	110BLSN	--	--	--
		013	GW	84-02-02	0840	110BLSN	--	--	--
		013	GW	84-03-01	0830	110BLSN	--	--	--
		013	GW	84-04-05	0940	110BLSN	--	--	--
		013	GW	84-05-03	0840	110BLSN	--	--	--
		013	GW	84-06-05	0845	110BLSN	--	--	--
		013	GW	84-07-09	1045	110BLSN	--	--	--
		013	GW	84-08-08	0945	110BLSN	--	--	--
		013	GW	84-09-05	1230	110BLSN	--	--	--
22S.04E.12.434 SW-18	322405106290101	013	GW	83-11-04	0810	110BLSN	--	--	--
		013	GW	83-12-02	1105	110BLSN	--	--	--
		013	GW	84-01-04	1020	110BLSN	--	--	--
		013	GW	84-02-02	0855	110BLSN	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (UMHOS) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS) (90095)	PH (STAND- ARD UNITS) (00400)
15S.05E.29.423	83-10-13	--	--	3935.00	1440	--	250	147000	128000	7.0
19S.05E.17.331 MAR-1	84-04-06	--	--	--	--	--	--	--	904	--
	84-08-17	--	--	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	84-04-06	--	--	--	--	--	--	--	812	--
19S.05E.22.343 LUCERO WE	84-07-25	--	--	--	--	--	--	827	--	7.9
21S.04E.14.114 HTA-3	84-05-24	157	--	5362.00	240	163	30	--	839	7.3
21S.04E.23.233 HTA-1	84-04-06	--	--	--	--	--	--	--	715	--
	84-08-17	--	--	--	--	--	--	--	--	--
21S.05E.16.132 SMR-1	84-04-06	--	--	--	--	--	--	--	782	--
	84-08-17	--	--	--	--	--	--	--	--	--
21S.05E.32.222 T-13	84-07-25	--	--	--	--	--	--	479	--	7.6
22S.04E.01.431 T-9	84-07-25	--	--	--	--	--	--	884	--	7.9
22S.04E.11.224 T-8	84-07-25	--	--	--	--	--	--	638	--	7.7
	84-07-25	--	--	--	--	--	--	642	--	7.8
22S.04E.12.214 SW-20	83-10-13	--	--	--	--	--	--	--	581	--
	83-11-04	--	--	--	--	--	--	--	565	--
	83-12-02	--	--	--	--	--	--	--	575	--
	84-01-04	--	--	--	--	--	--	--	580	--
	84-02-02	--	--	--	--	--	--	573	--	7.7
	84-03-01	--	--	--	--	--	--	577	--	7.6
	84-04-05	--	--	--	--	--	--	569	--	7.5
	84-05-03	--	--	--	--	--	--	564	--	7.7
	84-06-05	--	--	--	--	--	--	567	--	7.8
	84-07-09	--	--	--	--	--	--	563	--	8.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)
22S.04E.12.414 SW-19	83-10-13	--	--	--	--	--	--	--	396	--
	83-11-04	--	--	--	--	--	--	--	422	--
	83-12-02	--	--	--	--	--	--	--	422	--
	84-01-04	--	--	--	--	--	--	--	419	--
	84-02-02	--	--	--	--	--	--	423	--	7.8
	84-03-01	--	--	--	--	--	--	407	--	7.7
	84-04-05	--	--	--	--	--	--	393	--	7.5
	84-05-03	--	--	--	--	--	--	397	--	7.8
	84-06-05	--	--	--	--	--	--	398	--	7.6
	84-07-09	--	--	--	--	--	--	389	--	7.9
	84-08-08	--	--	--	--	--	--	401	--	7.7
	84-09-05	--	--	--	--	--	--	397	--	7.7
22S.04E.12.434 SW-18	83-11-04	--	--	--	--	--	--	--	379	--
	83-12-02	--	--	--	--	--	--	--	371	--
	84-01-04	--	--	--	--	--	--	--	372	--
	84-02-02	--	--	--	--	--	--	364	--	7.6

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
15S.05E.29.423	83-10-13	6.6	--	20.0	34000	71	8200	58000	140	500
19S.05E.17.331 MAR-1	84-04-06	7.4	--	24.0	--	--	--	--	--	--
	84-08-17	--	--	25.0	--	--	--	--	--	--
19S.05E.17.334 MAR-2	84-04-06	7.3	--	24.0	--	--	--	--	--	--
19S.05E.22.343 LUCERO WE	84-07-25	--	--	23.0	--	--	--	--	--	--
21S.04E.14.114 HTA-3	84-05-24	7.5	--	20.5	320	93	22	64	2	.80
21S.04E.23.233 HTA-1	84-04-06	7.4	--	16.5	--	--	--	--	--	--
	84-08-17	--	--	22.5	--	--	--	--	--	--
21S.05E.16.132 SMR-1	84-04-06	7.4	--	25.0	--	--	--	--	--	--
	84-08-17	--	--	27.0	--	--	--	--	--	--
21S.05E.32.222 T-13	84-07-25	--	--	25.5	--	--	--	--	--	--
22S.04E.01.431 T-9	84-07-25	--	--	25.5	--	--	--	--	--	--
22S.04E.11.224 T-8	84-07-25	--	--	24.0	--	--	--	--	--	--
	84-07-25	--	--	25.5	--	--	--	--	--	--
22S.04E.12.214 SW-20	83-10-13	7.5	--	--	--	--	--	--	--	--
	83-11-04	7.5	--	--	--	--	--	--	--	--
	83-12-02	7.6	--	--	--	--	--	--	--	--
	84-01-04	7.6	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	83-10-13	7.6	--	--	--	--	--	--	--	--
	83-11-04	7.6	--	--	--	--	--	--	--	--
	83-12-02	7.9	--	--	--	--	--	--	--	--
	84-01-04	7.7	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	83-11-04	7.5	--	--	--	--	--	--	--	--
	83-12-02	7.6	--	--	--	--	--	--	--	--
	84-01-04	7.6	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
15S.05E.29.423	83-10-13	125	<.5	12000	83000	1.1	20	223000	160000	<.10
19S.05E.17.331 MAR-1	84-04-06	--	--	--	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	84-04-06	--	--	--	--	--	--	--	--	--
19S.05E.22.343 LUCERO WE	84-07-25	--	--	--	--	--	--	--	--	--
21S.04E.14.114 HTA-3	84-05-24	235	--	140	--	6.1	25	538	--	3.8
21S.04E.23.233 HTA-1	84-04-06	--	--	--	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--	--	--	--
21S.05E.16.132 SMR-1	84-04-06	--	--	--	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--	--	--	--
21S.05E.32.222 T-13	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.01.431 T-9	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.11.224 T-8	84-07-25	--	--	--	--	--	--	--	--	--
	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.12.214 SW-20	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)
15S.05E.29.423	83-10-13	--	--	4700	--	--	--	--	--	4800
19S.05E.17.331 MAR-1	84-04-06	--	--	--	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	84-04-06	--	--	--	--	--	--	--	--	--
19S.05E.22.343 LUCERO WE	84-07-25	--	--	--	--	--	--	--	--	--
21S.04E.14.114 HTA-3	84-05-24	<1	42	30	<1	<10	<1	4	<1	38
21S.04E.23.233 HTA-1	84-04-06	--	--	--	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--	--	--	--
21S.05E.16.132 SMR-1	84-04-06	--	--	--	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--	--	--	--
21S.05E.32.222 T-13	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.01.431 T-9	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.11.224 T-8	84-07-25	--	--	--	--	--	--	--	--	--
	84-07-25	--	--	--	--	--	--	--	--	--

BEST COPY AVAILABLE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)
22S.04E.12.214 SW-20	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.12.434 SW-18	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
15S.05E.29.423	83-10-13	--	--	--	--	--	--
19S.05E.17.331 MAR-1	84-04-06	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--
19S.05E.17.334 MAR-2	84-04-06	--	--	--	--	--	--
19S.05E.22.343 LUCERO WE	84-07-25	--	--	--	--	--	--
21S.04E.14.114 HTA-3	84-05-24	<1	<.1	<1	<1	280	220
21S.04E.23.233 HTA-1	84-04-06	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--
21S.05E.16.132 SMR-1	84-04-06	--	--	--	--	--	--
	84-08-17	--	--	--	--	--	--
21S.05E.32.222 T-13	84-07-25	--	--	--	--	--	--
22S.04E.01.431 T-9	84-07-25	--	--	--	--	--	--
22S.04E.11.224 T-8	84-07-25	--	--	--	--	--	--
	84-07-25	--	--	--	--	--	--
22S.04E.12.214 SW-20	83-10-13	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
22S.04E.12.414 SW-19	83-10-13	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--
22S.04E.12.434 SW-18	83-11-04	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--

BEST COPY AVAILABLE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAM-PLING DEPTH (FEET) (00003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
22S.04E.12.434 SW-18	322405106290101	013	GW	84-03-01	0850	110BLSN	--	--	--
		013	GW	84-04-05	0955	110BLSN	--	--	--
		013	GW	84-05-02	0905	110BLSN	--	--	--
		013	GW	84-06-05	0900	110BLSN	--	--	--
		013	GW	84-07-09	1110	110BLSN	--	--	--
		013	GW	84-08-08	0915	110BLSN	--	--	--
		013	GW	84-09-05	1245	110BLSN	--	--	--
22S.04E.13.241 SW-17	322347106285801	013	GW	83-11-04	1020	110BLSN	--	--	--
		013	GW	83-12-02	1210	110BLSN	--	--	--
		013	GW	84-01-04	1100	110BLSN	--	--	--
		013	GW	84-02-02	0915	110BLSN	--	--	--
		013	GW	84-03-01	0925	110BLSN	--	--	--
		013	GW	84-04-05	1020	110BLSN	--	--	--
		013	GW	84-05-03	0810	110BLSN	--	--	--
		013	GW	84-06-05	0910	110BLSN	--	--	--
		013	GW	84-07-09	1120	110BLSN	--	--	--
		013	GW	84-08-08	0830	110BLSN	--	--	--
		013	GW	84-09-05	1115	110BLSN	--	--	--
22S.04E.13.311 SW-13	322331106293801	013	GW	84-04-05	1030	110BLSN	--	--	--
		013	GW	84-06-05	0935	110BLSN	--	--	--
		013	GW	84-07-09	0945	110BLSN	--	--	--
		013	GW	84-08-08	1015	110BLSN	--	--	--
22S.04E.13.432 SW-16	322325106290401	013	GW	83-10-13	--	110BLSN	--	--	--
		013	GW	83-11-04	1035	110BLSN	--	--	--
		013	GW	83-12-02	1225	110BLSN	--	--	--
		013	GW	84-01-04	1120	110BLSN	--	--	--
		013	GW	84-02-02	0935	110BLSN	--	--	--
		013	GW	84-03-01	0945	110BLSN	--	--	--
		013	GW	84-03-19	1030	110BLSN	--	--	--
		013	GW	84-04-05	1125	110BLSN	--	--	--
		013	GW	84-05-03	0925	110BLSN	--	--	--
		013	GW	84-06-05	0920	110BLSN	--	--	--
		013	GW	84-07-09	1220	110BLSN	--	--	--
		013	GW	84-08-08	1230	110BLSN	--	--	--
		013	GW	84-08-16	--	110BLSN	--	--	--
		013	GW	84-09-05	1100	110BLSN	--	--	--
22S.04E.14.133 T-6	322339106304301	013	GW	84-07-26	1520	110BLSN	--	350	--
22S.04E.15.331 BLM WELL	322323106314701	013	GW	84-03-19	1000	110PTOD	61.00	--	--
22S.04E.23.214 OS-12	322250106302501	013	GW	84-07-25	1335	110BLSN	238.26	340	--
22S.04E.24.112 SW-11	322310106293401	013	GW	83-10-13	--	110BLSN	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)
22S.04E.12.434 SW-18	84-03-01	--	--	--	--	--	--	375	--	7.6
	84-04-05	--	--	--	--	--	--	397	--	7.5
	84-05-02	--	--	--	--	--	--	367	--	7.6
	84-06-05	--	--	--	--	--	--	371	--	7.5
	84-07-09	--	--	--	--	--	--	370	--	7.9
	84-08-08	--	--	--	--	--	--	373	--	7.7
	84-09-05	--	--	--	--	--	--	376	--	7.6
22S.04E.13.241 SW-17	83-11-04	--	--	--	--	--	--	--	387	--
	83-12-02	--	--	--	--	--	--	--	397	--
	84-01-04	--	--	--	--	--	--	--	370	--
	84-02-02	--	--	--	--	--	--	381	--	7.8
	84-03-01	--	--	--	--	--	--	372	--	7.7
	84-04-05	--	--	--	--	--	--	396	--	7.4
	84-05-03	--	--	--	--	--	--	360	--	7.6
	84-06-05	--	--	--	--	--	--	387	--	7.6
	84-07-09	--	--	--	--	--	--	363	--	7.9
	84-08-08	--	--	--	--	--	--	389	--	7.8
	84-09-05	--	--	--	--	--	--	382	--	7.4
22S.04E.13.311 SW-13	84-04-05	--	--	--	--	--	--	618	--	7.0
	84-06-05	--	--	--	--	--	--	627	--	7.2
	84-07-09	--	--	--	--	--	--	617	--	7.8
	84-08-08	--	--	--	--	--	--	608	--	7.4

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (UMHOS) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS) (90095)	PH (STAND- ARD UNITS) (00400)
22S.04E.13.432 SW-16	83-10-13	--	--	--	--	--	--	--	399	--
	83-11-04	--	--	--	--	--	--	--	365	--
	83-12-02	--	--	--	--	--	--	--	398	--
	84-01-04	--	--	--	--	--	--	--	473	--
	84-02-02	--	--	--	--	--	--	551	--	7.4
	84-03-01	--	--	--	--	--	--	401	--	7.4
	84-03-19	--	--	--	--	--	--	--	402	--
	84-04-05	--	--	--	--	--	--	462	--	7.2
	84-05-03	--	--	--	--	--	--	375	--	7.5
	84-06-05	--	--	--	--	--	--	374	--	7.5
	84-07-09	--	--	--	--	--	--	437	--	7.8
	84-08-08	--	--	--	--	--	--	373	--	7.6
	84-08-16	--	--	--	--	--	--	--	369	--
	84-09-05	--	--	--	--	--	--	378	--	7.5
22S.04E.14.133 T-6	84-07-26	--	--	--	--	--	--	436	--	7.5
22S.04E.15.331 BLM WELL	84-03-19	295	--	4625.00	180	295	10	420	478	--
22S.04E.23.214 OS-12	84-07-25	--	--	--	--	--	--	485	--	7.5
22S.04E.24.112 SW-11	83-10-13	--	--	--	--	--	--	--	659	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
22S.04E.12.434 SW-18	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	83-11-04	7.6	--	--	--	--	--	--	--	--
	83-12-02	7.8	--	--	--	--	--	--	--	--
	84-01-04	7.6	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	84-04-05	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
22S.04E.13.432 SW-16	83-10-13	7.4	--	--	--	--	--	--	--	--
	83-11-04	7.3	--	--	--	--	--	--	--	--
	83-12-02	7.6	--	--	--	--	--	--	--	--
	84-01-04	7.4	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	8.1	--	25.0	130	40	8.3	27	1	2.0
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	7.8	--	--	120	37	6.3	32	1	1.9
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	84-07-26	--	--	23.0	--	--	--	--	--	--
22S.04E.15.331 BLM WELL	84-03-19	7.3	--	24.0	170	50	12	30	1	1.9
22S.04E.23.214 OS-12	84-07-25	--	--	22.5	--	--	--	--	--	--
22S.04E.24.112 SW-11	83-10-13	7.0	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
22S.04E.12.434 SW-18	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.13.311 SW-13	84-04-05	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
22S.04E.13.432 SW-16	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	110	--	57	17	.40	39	259	260	2.4
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	112	--	51	11	.40	34	233	240	1.1
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	84-07-26	--	--	--	--	--	--	--	--	--
22S.04E.15.331 BLM WELL	84-03-19	166	--	59	14	1.0	47	316	310	.55
22S.04E.23.214 OS-12	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.24.112 SW-11	83-10-13	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
22S.04E.12.434 SW-18	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
22S.04E.13.311 SW-13	84-04-05	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
22S.04E.13.432 SW-16	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.14.133 T-6	84-07-26	--	--	--	--	--	--	--	--	--
22S.04E.15.331 BLM WELL	84-03-19	<1	55	20	<1	<10	3	<3	<1	19
22S.04E.23.214 OS-12	84-07-25	--	--	--	--	--	--	--	--	--
22S.04E.24.112 SW-11	83-10-13	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
22S.04E.12.434 SW-18	84-03-01	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--
22S.04E.13.241 SW-17	83-11-04	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--
22S.04E.13.311 SW-13	84-04-05	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
22S.04E.13.432 SW-16	83-10-13	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--
	84-03-19	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
	84-08-16	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--
22S.04E.14.133 T-6	84-07-26	--	--	--	--	--	--
22S.04E.15.331 BLM WELL	84-03-19	<1	<.1	<1	<1	310	16
22S.04E.23.214 OS-12	84-07-25	--	--	--	--	--	--
22S.04E.24.112 SW-11	83-10-13	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAM-PLING DEPTH (FEET) (00003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
22S.04E.24.112 SW-11	322310106293401	013	GW	83-11-04	1050	110BLSN	--	--	--
		013	GW	83-12-02	0935	110BLSN	--	--	--
		013	GW	84-01-04	1330	110BLSN	--	--	--
		013	GW	84-02-02	1035	110BLSN	--	--	--
		013	GW	84-03-01	1120	110BLSN	--	--	--
		013	GW	84-03-19	1045	110BLSN	--	--	--
		013	GW	84-04-05	0820	110BLSN	--	--	--
		013	GW	84-06-05	0945	110BLSN	--	--	--
		013	GW	84-07-09	0920	110BLSN	--	--	--
		013	GW	84-08-08	0830	110BLSN	--	--	--
		013	GW	84-08-16	--	110BLSN	--	--	--
		013	GW	84-08-21	--	110BLSN	--	--	--
		013	GW	84-09-05	1000	110BLSN	--	--	--
22S.04E.24.144 SW-15A	322249106291801	013	GW	84-08-08	1330	110BLSN	--	--	--
		013	GW	84-09-05	1345	110BLSN	--	--	--
22S.04E.24.212A SW-10A	322309106290201	013	GW	83-10-13	--	110BLSN	--	--	--
		013	GW	83-11-04	1300	110BLSN	--	--	--
		013	GW	83-12-02	0920	110BLSN	--	--	--
		013	GW	84-01-04	1210	110BLSN	--	--	--
		013	GW	84-02-02	1020	110BLSN	--	--	--
		013	GW	84-03-01	1105	110BLSN	--	--	--
		013	GW	84-03-19	1010	110BLSN	--	--	--
		013	GW	84-04-05	0840	110BLSN	--	--	--
		013	GW	84-05-03	1025	110BLSN	--	--	--
		013	GW	84-06-05	1030	110BLSN	--	--	--
		013	GW	84-07-09	0905	110BLSN	--	--	--
		013	GW	84-08-08	1000	110BLSN	--	--	--
		013	GW	84-08-16	--	110BLSN	--	--	--
		013	GW	84-08-21	--	110BLSN	--	--	--
22S.05E.05.313 T-10	322510106274101	013	GW	84-07-25	0940	110BLSN	--	530	--
22S.05E.07.342 T-7	322415106281801	013	GW	84-07-24	1425	110BLSN	--	440	--
		013	GW	84-07-24	1435	110BLSN	--	960	--
22S.05E.15.221 T-14	321401106245201	013	GW	84-07-24	1120	110BLSN	--	300	--
		013	GW	84-07-24	1300	110BLSN	--	200	--
22S.05E.16.111 T-4	322403106263901	013	GW	84-07-24	1400	110BLSN	--	325	--
22S.05E.19.141 SW-22	322256106282601	013	GW	83-10-13	--	110BLSN	--	--	--
		013	GW	83-11-04	1315	110BLSN	--	--	--
		013	GW	83-12-02	0855	110BLSN	--	--	--
		013	GW	84-01-04	0905	110BLSN	--	--	--
		013	GW	84-02-02	1045	110BLSN	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)
22S.04E.24.112 SW-11	83-11-04	--	--	--	--	--	--	--	738	--
	83-12-02	--	--	--	--	--	--	--	769	--
	84-01-04	--	--	--	--	--	--	--	747	--
	84-02-02	--	--	--	--	--	--	778	--	7.2
	84-03-01	--	--	--	--	--	--	768	--	7.1
	84-03-19	--	--	--	--	--	--	--	760	--
	84-04-05	--	--	--	--	--	--	744	--	6.8
	84-06-05	--	--	--	--	--	--	747	--	7.0
	84-07-09	--	--	--	--	--	--	761	--	7.7
	84-08-08	--	--	--	--	--	--	398	--	8.3
	84-08-16	--	--	--	--	--	--	--	416	--
	84-08-21	--	--	--	--	--	--	600	--	--
	84-09-05	--	--	--	--	--	--	394	--	7.8
22S.04E.24.144 SW-15A	84-08-08	--	--	--	--	--	--	346	--	7.4
	84-09-05	--	--	--	--	--	--	346	--	7.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (UMHOS) (00095)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS) (90095)	PH (STAND- ARD UNITS) (00400)
22S.04E.24.212A SW-10A	83-10-13	--	--	--	--	--	--	--	325	--
	83-11-04	--	--	--	--	--	--	--	341	--
	83-12-02	--	--	--	--	--	--	--	322	--
	84-01-04	--	--	--	--	--	--	--	335	--
	84-02-02	--	--	--	--	--	--	332	--	7.2
	84-03-01	--	--	--	--	--	--	337	--	7.1
	84-03-19	--	--	--	--	--	--	--	339	--
	84-04-05	--	--	--	--	--	--	349	--	6.9
	84-05-03	--	--	--	--	--	--	343	--	7.4
	84-06-05	--	--	--	--	--	--	339	--	7.6
	84-07-09	--	--	--	--	--	--	337	--	7.9
	84-08-08	--	--	--	--	--	--	337	--	7.6
	84-08-16	--	--	--	--	--	--	--	366	--
	84-08-21	--	--	--	--	--	--	300	--	--
22S.05E.05.313 T-10	84-07-25	--	--	--	--	--	--	321	--	8.0
22S.05E.07.342 T-7	84-07-24	--	--	--	--	--	--	344	--	7.8
	84-07-24	--	--	--	--	--	--	441	--	7.6
22S.05E.15.221 T-14	84-07-24	--	--	--	--	--	--	1720	--	7.5
	84-07-24	--	--	--	--	--	--	1720	--	7.4
22S.05E.16.111 T-4	84-07-24	--	--	--	--	--	--	307	--	7.4
22S.05E.19.141 SW-22	83-10-13	--	--	--	--	--	--	--	353	--
	83-11-04	--	--	--	--	--	--	--	352	--
	83-12-02	--	--	--	--	--	--	--	348	--
	84-01-04	--	--	--	--	--	--	--	353	--
	84-02-02	--	--	--	--	--	--	357	--	7.9

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PH LAB (STAND- ARD UNITS) (00403)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
22S.04E.24.112 SW-11	83-11-04	7.0	--	--	--	--	--	--	--	--
	83-12-02	7.2	--	--	--	--	--	--	--	--
	84-01-04	7.0	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	7.7	--	22.0	320	90	22	35	.9	2.9
	84-04-05	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	8.3	--	--	140	44	8.4	31	1	2.2
	84-08-21	--	--	24.0	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.24.144 SW-15A	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	83-10-13	7.2	--	--	--	--	--	--	--	--
	83-11-04	7.0	--	--	--	--	--	--	--	--
	83-12-02	7.1	--	--	--	--	--	--	--	--
	84-01-04	7.1	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	8.0	--	25.0	110	33	7.5	22	.9	1.8
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	7.5	--	--	130	39	8.3	22	.9	2.0
	84-08-21	--	--	26.0	--	--	--	--	--	--
22S.05E.05.313 T-10	84-07-25	--	--	25.0	--	--	--	--	--	--
22S.05E.07.342 T-7	84-07-24	--	--	25.0	--	--	--	--	--	--
	84-07-24	--	--	27.0	--	--	--	--	--	--
22S.05E.15.221 T-14	84-07-24	--	--	23.5	--	--	--	--	--	--
	84-07-24	--	--	23.5	--	--	--	--	--	--
22S.05E.16.111 T-4	84-07-24	--	--	24.0	--	--	--	--	--	--
22S.05E.19.141 SW-22	83-10-13	7.6	--	--	--	--	--	--	--	--
	83-11-04	7.7	--	--	--	--	--	--	--	--
	83-12-02	7.8	--	--	--	--	--	--	--	--
	84-01-04	7.8	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ALKA- LINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
22S.04E.24.112 SW-11	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	187	--	150	24	.40	41	515	480	9.9
	84-04-05	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	112	--	66	16	.60	35	268	270	1.4
	84-08-21	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.24.144 SW-15A	84-08-08	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-03-19	97	--	47	13	.40	43	228	230	1.4
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-16	87	--	51	22	.30	43	230	240	2.3
	84-08-21	--	--	--	--	--	--	--	--	--
22S.05E.05.313 T-10	84-07-25	--	--	--	--	--	--	--	--	--
22S.05E.07.342 T-7	84-07-24	--	--	--	--	--	--	--	--	--
	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.15.221 T-14	84-07-24	--	--	--	--	--	--	--	--	--
	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.16.111 T-4	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.19.141 SW-22	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAM- PLING DEPTH (FEET) (00003)	DEPTH TO TOP OF WATER- BEARING ZONE (FT) (72002)
22S.05E.19.141 SW-22	322256106282601	013	GW	84-03-01	1055	110BLSN	--	--	--
		013	GW	84-04-05	1045	110BLSN	--	--	--
		013	GW	84-05-02	1045	110BLSN	--	--	--
		013	GW	84-06-05	1045	110BLSN	--	--	--
		013	GW	84-07-09	0845	110BLSN	--	--	--
		013	GW	84-08-08	1045	110BLSN	--	--	--
		013	GW	84-08-21	--	110BLSN	--	--	--
		013	GW	84-09-05	0900	110BLSN	--	--	--
22S.05E.19.323 SW-21	322237106282801	013	GW	83-10-13	--	110BLSN	--	--	--
		013	GW	83-11-04	1325	110BLSN	--	--	--
		013	GW	83-12-02	0825	110BLSN	--	--	--
		013	GW	84-01-04	0815	110BLSN	--	--	--
		013	GW	84-02-02	1105	110BLSN	--	--	--
		013	GW	84-03-01	1020	110BLSN	--	--	--
		013	GW	84-04-05	1100	110BLSN	--	--	--
		013	GW	84-05-03	1115	110BLSN	--	--	--
		013	GW	84-06-05	--	110BLSN	--	--	--
		013	GW	84-07-09	0820	110BLSN	--	--	--
		013	GW	84-08-08	1115	110BLSN	--	--	--
		013	GW	84-08-13	0900	110BLSN	--	--	--
		013	GW	84-08-21	--	110BLSN	--	--	--
		013	GW	84-09-05	0945	110BLSN	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAM-PLING DEPTH (FEET) (00003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
22S.05E.20.111 T-5	322311106274101	013	GW	84-07-24	1330	110BLSN	--	330	--
22S.05E.28.234 T-34	322201106260201	013	GW	84-09-11	1530	110AVMB	E188.50	--	--
22S.05E.29.412 T-11	322155106270201	013	GW	84-07-24	1115	110BLSN	--	570	--
22S.05E.33.244 T-15	322108106254701	013	GW	84-07-24	1040	110BLSN	--	448	--
23S.05E.05.321 T-18	322010106272701	013	GW	84-07-25	1300	110BLSN	--	635	--
23S.05E.10.413 T-16	321910106250701	013	GW	84-07-24	1000	110BLSN	--	480	--
23S.05E.27.142 T-17	321647106251301	013	GW	84-07-24	0930	110BLSN	--	440	--
24S.02E.16.124A PARK DRA	321332106443701	013	GW	83-11-21	1550	112SNTF	--	302	--
24S.02E.16.124B PARK DRA	321332106443702	013	GW	83-12-06	1145	112SNTF	--	115	--
24S.02E.16.124C PARK DRA	321332106443703	013	GW	83-12-08	1045	110AVMB	--	35.0	--
24S.02E.19.214A RIVER SI	321237106462001	013	GW	83-11-08	1315	112SNTF	--	315	--
24S.02E.19.214B RIVER SI	321237106462002	013	GW	83-11-11	1500	112SNTF	--	120	--
24S.02E.19.214C RIVER SI	321237106462003	013	GW	83-11-16	1040	110AVMB	--	40.0	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)
22S.05E.19.141 SW-22	84-03-01	--	--	--	--	--	--	354	--	7.3
	84-04-05	--	--	--	--	--	--	351	--	7.5
	84-05-02	--	--	--	--	--	--	349	--	7.8
	84-06-05	--	--	--	--	--	--	349	--	7.5
	84-07-09	--	--	--	--	--	--	352	--	8.0
	84-08-08	--	--	--	--	--	--	350	--	8.2
	84-08-21	--	--	--	--	--	--	320	--	--
	84-09-05	--	--	--	--	--	--	349	--	7.6
22S.05E.19.323 SW-21	83-10-13	--	--	--	--	--	--	--	296	--
	83-11-04	--	--	--	--	--	--	--	289	--
	83-12-02	--	--	--	--	--	--	--	298	--
	84-01-04	--	--	--	--	--	--	--	300	--
	84-02-02	--	--	--	--	--	--	293	--	7.3
	84-03-01	--	--	--	--	--	--	296	--	7.3
	84-04-05	--	--	--	--	--	--	296	--	7.2
	84-05-03	--	--	--	--	--	--	296	--	7.5
	84-06-05	--	--	--	--	--	--	298	--	7.2
	84-07-09	--	--	--	--	--	--	293	--	7.7
	84-08-08	--	--	--	--	--	--	286	--	7.4
	84-08-13	--	--	--	--	--	--	--	301	6.7
	84-08-21	--	--	--	--	--	--	260	--	--
	84-09-05	--	--	--	--	--	--	295	--	7.7
22S.05E.20.111 T-5	84-07-24	--	--	--	--	--	--	379	--	7.5
22S.05E.28.234 T-34	84-09-11	400	--	E4005.00	1830	400	20	710	731	--
22S.05E.29.412 T-11	84-07-24	--	--	--	--	--	--	267	--	7.8
22S.05E.33.244 T-15	84-07-24	--	--	--	--	--	--	297	--	7.7
23S.05E.05.321 T-18	84-07-25	--	--	--	--	--	--	743	--	7.8
23S.05E.10.413 T-16	84-07-24	--	--	--	--	--	--	284	--	7.9
23S.05E.27.142 T-17	84-07-24	457	--	--	--	--	--	225	--	7.4
24S.02E.16.124A PARK DRA	83-11-21	307	--	3862.00	--	--	--	580	493	8.4
24S.02E.16.124B PARK DRA	83-12-06	120	--	3862.00	--	--	--	1440	1390	--
24S.02E.16.124C PARK DRA	83-12-08	40.00	--	3862.00	--	--	--	1640	1580	--
24S.02E.19.214A RIVER SI	83-11-08	320	--	3859.00	--	--	--	620	562	8.2
24S.02E.19.214B RIVER SI	83-11-11	125	--	3859.00	--	--	--	840	700	9.7
24S.02E.19.214C RIVER SI	83-11-16	45.00	--	3859.00	--	--	--	840	705	9.8

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
22S.05E.19.141 SW-22	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-21	--	--	28.5	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	83-10-13	7.0	--	--	--	--	--	--	--	--
	83-11-04	7.1	--	--	--	--	--	--	--	--
	83-12-02	7.2	--	--	--	--	--	--	--	--
	84-01-04	7.3	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-13	7.5	--	--	100	28	7.6	20	.9	1.7
	84-08-21	--	--	25.5	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	84-07-24	--	--	24.5	--	--	--	--	--	--
22S.05E.28.234 T-34	84-09-11	7.8	--	23.5	270	86	14	35	1	2.9
22S.05E.29.412 T-11	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.33.244 T-15	84-07-24	--	--	24.0	--	--	--	--	--	--
23S.05E.05.321 T-18	84-07-25	--	--	27.0	--	--	--	--	--	--
23S.05E.10.413 T-16	84-07-24	--	--	23.5	--	--	--	--	--	--
23S.05E.27.142 T-17	84-07-24	--	--	--	--	--	--	--	--	--
24S.02E.16.124A PARK DRA	83-11-21	8.2	12.0	18.0	150	45	9.0	46	2	3.1
24S.02E.16.124B PARK DRA	83-12-06	7.9	9.5	18.0	510	160	28	120	2	10
24S.02E.16.124C PARK DRA	83-12-08	7.9	12.0	17.5	480	150	25	170	4	9.3
24S.02E.19.214A RIVER SI	83-11-08	8.2	23.0	18.0	170	54	8.6	55	2	3.7
24S.02E.19.214B RIVER SI	83-11-11	8.3	22.0	16.5	190	56	11	67	2	5.7
24S.02E.19.214C RIVER SI	83-11-16	9.3	18.5	17.5	160	53	5.8	110	4	7.7

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
22S.05E.19.141 SW-22	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-21	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-13	85	--	33	12	.40	47	--	200	1.6
	84-08-21	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.28.234 T-34	84-09-11	80	--	110	91	.20	36	509	420	8.3
22S.05E.29.412 T-11	84-07-24	--	--	--	--	--	--	--	--	--

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
22S.05E.33.244 T-15	84-07-24	--	--	--	--	--	--	--	--	--
23S.05E.05.321 T-18	84-07-25	--	--	--	--	--	--	--	--	--
23S.05E.10.413 T-16	84-07-24	--	--	--	--	--	--	--	--	--
23S.05E.27.142 T-17	84-07-24	--	--	--	--	--	--	--	--	--
24S.02E.16.124A PARK DRA	83-11-21	148	--	44	45	.40	24	306	310	<.10
24S.02E.16.124B PARK DRA	83-12-06	162	--	380	140	.30	29	949	970	.13
24S.02E.16.124C PARK DRA	83-12-08	164	--	460	150	.40	32	1140	1100	.29
24S.02E.19.214A RIVER SI	83-11-08	146	--	75	51	.20	25	372	360	<.10
24S.02E.19.214B RIVER SI	83-11-11	51	--	130	130	.30	21	460	450	<.10
24S.02E.19.214C RIVER SI	83-11-16	174	--	170	59	.70	20	519	530	<.10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)
22S.05E.19.141 SW-22	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-21	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.05E.19.323 SW-21	83-10-13	--	--	--	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--	--	--	--
	84-08-13	--	--	--	--	--	--	10	--	--
	84-08-21	--	--	--	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.28.234 T-34	84-09-11	1	130	50	<1	<10	<1	130	<1	20
22S.05E.29.412 T-11	84-07-24	--	--	--	--	--	--	--	--	--
22S.05E.33.244 T-15	84-07-24	--	--	--	--	--	--	--	--	--
23S.05E.05.321 T-18	84-07-25	--	--	--	--	--	--	--	--	--
23S.05E.10.413 T-16	84-07-24	--	--	--	--	--	--	--	--	--
23S.05E.27.142 T-17	84-07-24	--	--	--	--	--	--	--	--	--
24S.02E.16.124A PARK DRA	83-11-21	--	--	70	--	--	--	8	3	--
24S.02E.16.124B PARK DRA	83-12-06	--	--	120	--	--	--	12	<1	--
24S.02E.16.124C PARK DRA	83-12-08	--	--	200	--	--	--	8	<1	--
24S.02E.19.214A RIVER SI	83-11-08	--	--	60	--	--	--	690	4	--
24S.02E.19.214B RIVER SI	83-11-11	--	--	50	--	--	--	9	2	--
24S.02E.19.214C RIVER SI	83-11-16	--	--	190	--	--	--	6	2	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

DONA ANA COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
22S.05E.19.141 SW-22	84-03-01	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-02	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
	84-08-21	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--
22S.05E.19.323 SW-21	83-10-13	--	--	--	--	--	--
	83-11-04	--	--	--	--	--	--
	83-12-02	--	--	--	--	--	--
	84-01-04	--	--	--	--	--	--
	84-02-02	--	--	--	--	--	--
	84-03-01	--	--	--	--	--	--
	84-04-05	--	--	--	--	--	--
	84-05-03	--	--	--	--	--	--
	84-06-05	--	--	--	--	--	--
	84-07-09	--	--	--	--	--	--
	84-08-08	--	--	--	--	--	--
	84-08-13	<10	--	--	--	--	--
	84-08-21	--	--	--	--	--	--
	84-09-05	--	--	--	--	--	--
22S.05E.20.111 T-5	84-07-24	--	--	--	--	--	--
22S.05E.28.234 T-34	84-09-11	2	<.1	2	<1	650	14
22S.05E.29.412 T-11	84-07-24	--	--	--	--	--	--
22S.05E.33.244 T-15	84-07-24	--	--	--	--	--	--
23S.05E.05.321 T-18	84-07-25	--	--	--	--	--	--
23S.05E.10.413 T-16	84-07-24	--	--	--	--	--	--
23S.05E.27.142 T-17	84-07-24	--	--	--	--	--	--
24S.02E.16.124A PARK DRA	83-11-21	110	--	--	--	--	--
24S.02E.16.124B PARK DRA	83-12-06	520	--	--	--	--	--
24S.02E.16.124C PARK DRA	83-12-08	320	--	--	--	--	--
24S.02E.19.214A RIVER SI	83-11-08	34	--	--	--	--	--
24S.02E.19.214B RIVER SI	83-11-11	6	--	--	--	--	--
24S.02E.19.214C RIVER SI	83-11-16	34	--	--	--	--	--

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)
19S.05E.17.331 MAR-1	323906106274301	013	GW	84-08-17	--	47	8.2	7.1	.26
21S.04E.23.233 HTA-1	322801106300801	013	GW	84-08-17	--	<14	<6.0	<5.1	.10
21S.05E.16.132 SMR-1	322856106262701	013	GW	84-08-17	--	<16	<6.2	<5.3	.16
22S.04E.24.112 SW-11	322310106293401	013	GW	84-08-21	--	<13	6.3	5.4	.25
22S.04E.24.212A SW-10A	322309106290201	013	GW	84-08-21	--	<6.1	3.4	3.0	.14
22S.05E.19.141 SW-22	322256106282601	013	GW	84-08-21	--	<5.9	3.6	3.1	.12
22S.05E.19.323 SW-21	322237106282801	013	GW	84-08-21	--	<4.7	<2.2	<1.9	.14

LOCAL IDENT-I-FIER	DATE OF SAMPLE	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
19S.05E.17.331 MAR-1	84-08-17	34
21S.04E.23.233 HTA-1	84-08-17	4.2
21S.05E.16.132 SMR-1	84-08-17	8.0
22S.04E.24.112 SW-11	84-08-21	6.4
22S.04E.24.212A SW-10A	84-08-21	2.1
22S.05E.19.141 SW-22	84-08-21	3.1
22S.05E.19.323 SW-21	84-08-21	.8

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WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

MCKINLEY COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)
16N.02W.06.3444 TB2B OBS	353822108585401	031	GW	84-08-30	1510	211MENF	2700	2710	7.0
16N.20W.06.4334 TB2C OBS	353822108584901	031	GW	84-08-30	1430	211MENF	2700	2690	7.1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
16N.02W.06.3444 TB2B OBS	84-08-30	7.3	14.0	1100	300	74	280	4	3.2	1200
16N.20W.06.4334 TB2C OBS	84-08-30	7.4	14.5	1100	340	59	25	.3	1.9	1300

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
16N.02W.06.3444 TB2B OBS	84-08-30	35	.30	19	--	<.010	.80	.080	.42	<.010
16N.20W.06.4334 TB2C OBS	84-08-30	44	.40	16	.24	.030	.27	.080	.12	<.010

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
16N.02W.06.3444 TB2B OBS	84-08-30	30	100	<3	22	<1	<1	2800
16N.20W.06.4334 TB2C OBS	84-08-30	20	100	<3	670	1	<1	2700

SANTA FE COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)
11N.07E.21.322	350947106120301	049	GW	84-08-21	1300	110BLSN	108.70	160	6802.00

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
11N.07E.21.322	84-08-21	500	526	7.6	7.8	30.5	21.5	220	55	19

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA-LINITY FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
11N.07E.21.322	84-08-21	21	.6	1.3	260	220	222	19	19	.30

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SANTA FE COUNTY -- Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
11N.07E.21.322	84-08-21	25	290	2.7	.050	2.7	<.010	.030	1.5	<1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
11N.07E.21.322	84-08-21	190	1	<10	36	7	<1	27

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
11N.07E.21.322	84-08-21	<.1	1	<1	480

SIERRA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF HOLE, TOTAL (FEET) (72001)
13S.04E.11.334 RC-4	331135106345701	051	GW	84-03-02	1420	110BLSN	--	4595.00	E710

LOCAL IDENT-I-FIER	DATE OF SAMPLE	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
13S.04E.11.334 RC-4	84-03-02	25	970	1020	8.1	28.5	480	100	56	40

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
13S.04E.11.334 RC-4	84-03-02	.8	2.5	191	260	60	.80	27	705	660

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
13S.04E.11.334 RC-4	84-03-02	5.8	<1	27	80	<1	<10	11	<3	<1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
13S.04E.11.334 RC-4	84-03-02	24	3	<.1	1	<1	1700	200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984

SOCORRO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)
04N.06W.27.4314 BUDDY MA	343218107270801	053	GW	84-05-02	1415	313SADG	--	784	--
		053	GW	84-07-02	1000	313SADG	--	784	--
06S.03E.05.232 SRC-1	334908106390801	053	GW	84-08-27	1530	110AVMB	--	--	--
06S.03E.05.234 SRC-2	334907106391201	053	GW	84-08-21	1156	110AVMB	--	--	--
		053	GW	84-08-27	1545	110AVMB	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. ABOVE NGVD) (72000)	DEPTH OF HOLE, TOTAL (FEET) (72001)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	TEMPER-ATURE (DEG C) (00010)
04N.06W.27.4314 BUDDY MA	84-05-02	510	6020.00	784	56	3500	3820	6.4	6.9	--
	84-07-02	510	6020.00	784	56	4000	3800	6.6	7.2	23.0
06S.03E.05.232 SRC-1	84-08-27	--	--	--	--	3420	--	7.4	--	--
06S.03E.05.234 SRC-2	84-08-21	--	--	--	--	3440	--	7.2	--	--
	84-08-27	--	--	--	--	3450	--	7.5	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR-BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA-LINITY LAB (MG/L AS CACO3) (90410)
04N.06W.27.4314 BUDDY MA	84-05-02	1700	530	100	300	3	24	--	--	400
	84-07-02	1800	550	110	320	3	23	480	.000	378
06S.03E.05.232 SRC-1	84-08-27	--	--		--	--	--	--	--	--
06S.03E.05.234 SRC-2	84-08-21	--	--	--	--	--	-	--	--	--
	84-08-27	--	--	--	--	--	--	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
04N.06W.27.4314 BUDDY MA	84-05-02	1900	110	2.2	11	3200	--	780	3900	--
	84-07-02	2000	110	3.3	11	3400	<.10	800	5600	460
06S.03E.05.232 SRC-1	84-08-27	--	--	--	--	--	--	--	--	--
06S.03E.05.234 SRC-2	84-08-21	--	--	--	--	--	--	--	--	--
	84-08-27	--	--	--	--	--	--	--	--	--

VALENCIA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (UMHOS) (00095)
08N.03W.15.324	355503107082701	061	GW	84-05-02	1015	313SADG	1250	5.0	16590

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE LAB (UMHOS) (90095)	PH (STAND-ARD UNITS) (00400)	PH LAB (STAND-ARD UNITS) (00403)	HARD-NESS (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
08N.03W.15.324	84-05-02	16100	6.5	6.7	2400	650	190	3300	30	110

LOCAL IDENT-I-FIER	DATE OF SAMPLE	ALKA-LINITY LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
08N.03W.15.324	84-05-02	1710	4700	2800	2.1	8.4	13000	8600	140

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	2.54x10^{1}	millimeters (mm)
	2.54x10^{-2}	meters (m)
feet (ft)	3.048x10^{-1}	meters (m)
miles (mi)	1.609x10^{0}	kilometers (km)
	Area	
acres	4.047x10^{3}	square meters (m^{2})
	4.047x10^{-1}	square hectometers (hm^{2})
	4.047x10^{-3}	square kilometers (km^{2})
square miles (mi^{2})	2.590x10^{0}	square kilometers (km^{2})
	Volume	
gallons (gal)	3.785x10^{0}	liters (L)
	3.785x10^{0}	cubic decimeters (dm^{3})
	3.785x10^{-3}	cubic meters (m^{3})
million gallons	3.785x10^{3}	cubic meters (m^{3})
	3.785x10^{-3}	cubic hectometers (hm^{3})
cubic feet (ft^{3})	2.832x10^{1}	cubic decimeters (dm^{3})
	2.832x10^{-2}	cubic meters (m^{3})
cfs-days	2.447x10^{3}	cubic meters (m^{3})
	2.447x10^{-3}	cubic hectometers (hm^{3})
acre-feet (acre-ft)	1.233x10^{3}	cubic meters (m^{3})
	1.233x10^{-3}	cubic hectometers (hm^{3})
	1.233x10^{-6}	cubic kilometers (km^{3})
	Flow	
cubic feet per second (ft^{3}/s)	2.832x10^{1}	liters per second (L/s)
	2.832x10^{1}	cubic decimeters per second (dm^{3}/s)
	2.832x10^{-2}	cubic meters per second (m^{3}/s)
gallons per minute (gal/min)	6.309x10^{-2}	liters per second (L/s)
	6.309x10^{-2}	cubic decimeters per second (dm^{3}/s)
	6.309x10^{-5}	cubic meters per second (m^{3}/s)
million gallons per day	4.381x10^{1}	cubic decimeters per second (dm^{3}/s)
	4.381x10^{-2}	cubic meters per second (m^{3}/s)
	Mass	
tons (short)	9.072x10^{-1}	megagrams (Mg) or metric tons